This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

ENT
9

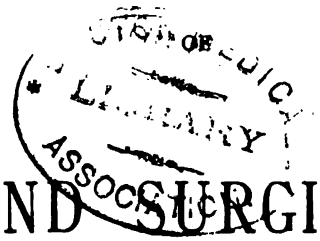
No. .....

BOSTON
MEDICAL LIBRARY
ASSOCIATION,
19 BOYLSTON PLACE.

THE

CANADA LANCET;

A MONTHLY JOURNAL



MEDICAL AND SURGICAL SCIENCE,

CRITICISM AND NEWS.

VOL. X.

TORONTO:

DUDLEY & BURNS, PRINTERS, RANKIN BLOCK, COLBORNE STREET.

1878.

LIST OF CONTRIBUTORS TO VOL. X.

William Sloan, M.D., Blyth.
Charles Black, A.M., M.D., Forest, Ont.
J. Gardner, M.D., Hespeler.
J. Fulton, M.D., M.R.C.S., Toronto.
A. McKinnon, M.D., Lucknow.
A. H. Chandler, M.D., Dorchester, N. B.
G. B. Mott, M.D., Petrolia.
J. R. Alexander, M.D., Montreal.
A. Alt., M.D., Toronto.
D. Clark, M.D., Toronto.
W. A. Willoughby, M.D., Colborne.
G. M. Aylesworth, M.D., Collingwood.
H. VanBuren, M.D., Chicago, U. S.
W. H. Hingston, M.D., etc., Montreal.
H. J. Saunders, M.D., M.R.C.S., Millpoint.
J. Workman, M.D., Toronto.
C. W. Covernton, M.D., M.R.C.S., Toronto.
D. L. Philip, M.D., Brantford.
J. A. Grant, M.D., F.R.C.S. Ed., Ottawa.
J. Newell, M.D., Springfield.
S. Fitch, M.D. Ed., Halifax, N. S.
A. A. Andrews, M.D., Montreal.
H. McColl, M.D., Lapeer, Michigan, U. S.
James Cattermole, M.D., L.S.A., London.
W. N. Campbell, M.D., New York.
A. Groves, M.D., Fergus.
James Hayes, M.D., Simcoe.
W. B. Towler, M.D., Wingham.
N. A. Powell, M.D., Edgar.
D. W. Lundy, M.D., Albany, Ill.
J. W. Rosebrugh, M.D., Hamilton.
A. D. Millar, M.D., New Dundee.
H. M. McKay, M.D., Woodstock.
J. R. Hamilton, M.D., Stratford.
D. O'Brien, M.D., Renfrew.
E. G. Kidd, M.D., Manotick.
J. M. Smith, M.D., Morpeth.
W. Rear, M.D., Bracebridge.
J. J. Hillary, M.D., Jamaica.
V. A. Brown, M.D., London.
J. H. Ryan, M.D., Sussex, N. B.
W. F. Savage, M.D., Elora.
T. S. Barclay, M.D., Detroit, Mich.
A. Bethune, M.D., Wingham, Ont.
—. Burrows, M.D., Lindsay, Ont.
W. Workman, M.D., Toronto.

INDEX TO VOL. X.

PAGE

Abdominal Tumors, Lectures on Diagnosis and Treatment—Spencer Wells 363
Accoucheur, coming duties of 246
Acid, Hydrobromic 155
Acid, Salicylic, in Acute Rheumatism 157
Acid, Salicylic, in Diphtheria 221
Acid, Salicylic, in Malignant Scarlatina 310
Acid, Carbolic, Poisoning from, by J. H. Ryan, M.D., Sussex, N. B. 324
Acid, Salicylic, danger of in Kidney Disease 179
Acid, Hydrobromic and Quinine, in sedative doses 253
Acid, Hydrobromic, in Cerebro-Spinal Meningitis 281
Acne Bromine, Remedy for 88
Action for Slander 284
Address delivered before the Bathurst and Rideau Medical Association, by J. A. Grant, M.D., F.R.C.S. Edin., Ottawa 159
Administration of Iron and Cod-liver Oil 368
Alimentation in Surgical Diseases—Hamilton 169
Amyl Nitrite, Therapeutic uses of 132
Ambulances for Hospitals 93
Amputation at Ankle—Symes 109
Anchylosis of Hip, Adam's operation 247
Anemia and Chlorosis, difference between 248
Aneurism, Esmarch's bandage in 245
Anemia, local, production of in treating disease of the extremities 171
Anemia, progressive pernicious 176
Anuria lasting twenty-five days 181
Another Volume 23
Animal Vaccine Virus 26
Anasarca, drainage in 29
Aneurism, Popliteal—Esmarch's bandage in 49
Aneurism cured by Shot-bag 59
Antiseptics, Puerperal 371
Appointments 32, 64, 94, 127, 157, 222, 255, 286, 378
Arsenic, Hypodermically, in Asthma 221
Artificial Respiration, Direct Method 86, 334
Aspirator, handy, by S. Fitch, M.D., Halifax, N. S. 166
Asthma Nervosum, treatment with Arsenic and Galvanization of the Vagi 111
Atropine in Night Sweats 179
Battey's Operation 213
Belmont Retreat 254
Bilious and Typhoid Fever, Cases ranging between, by Alex. Bethune, M.D., Wingham, Ont 353
Bilious Attacks 57
Bilious Attacks of Spring 283
Bladder, Catarrh of, Potash Chlor. in 330
Blindness, Simulated, One-sided, by A. Alt, M.D., Toronto 236
Blood Corpuscles, Red, Nuclei in 181
Bogus Diploma business 95
Bone, New Formation after Resection 326
Book Notices 31, 64, 96, 127, 157, 190, 223-4, 286-8, 350, 378
Bow-legs, treatment of in Children 302
Brain Injuries 313
Brain Hygiene 342
Breach Presentations, management 180
Brewery Grains as food for cows 24
British Association for advancement of Science 81
British Medical Council 313
"British and Foreign Medico-Chirurgical Review," suspension of 187
British Medical Bill 283

PAGE

Bronchiectasis, treatment of 306
Burns and Scalds, new remedy for 9
Burns, Sodæ Bicarb. in 93
Buboes, abortive treatment 95
Catheter, Indications for use 16
Calcium, Muriate, in Tuberculosis 310
Canada Medical Association 59
Cancer of Stomach, by G. B. Mott, M.D., Petrolia, Ont 67
Cardiac Disease, cases of—Pepper 167
Calculi, Multiple, Perineal 132
Cæsarean Section—Braxton Hicks 247
Cæsarean Section after Death 120
Chancres, Excision of 247
Chemistry of Common Life 188
Chloroform, test of purity 20
Chloroform, Deaths from 16, 157
Chloroform, Death from, averted by Amyl Nitrite 48
Chloroform Narcosis, changes of Pupils in 58
Chloroform, protracted Syncope under 242
Chloroform, Substitute for 93
Cholera Morbus and Diseases of Summer 24
Chloral Hydrate in Delirium Tremens 211
Cinchonidia Sulphate 154
Cinchonidia Sulphate as an Antiperiodic 146
Cirrhosis of the Liver—Loomis 75
Cod-liver Oil, Substitute for 309
Cold Drinks, making 310
College of Physicians and Surgeons, Ont., Examinations 318
Colonial Medical Degrees 145
Collodion Flexile in Eczema 180
Colles' Fracture treatment 305
Comparative Longevity 26
Contagium Vivum theory 89
Contagium Vivum, doctrine of 37
Contagion, Theory of 94
Conference with American Medical Association 124
Coroners 256, 286, 320
Croton-Chloral and its uses 143
Croup, treatment by Swabbing the Larynx 118
Cyst, Hepatic, Clinic—Gaillard Thomas 361
Cystitis, Irrigation in Chronic 19

CORRESPONDENCE—

Ex Concesso 3
Medical Profession in Michigan—Observer 35
Hysterotomy—Dr. Clark 71
The Tyranny of a False Sentiment 72
W. H. Hingston, M.D., Montreal 104
Great Western Railway Medical Tariff 132, 186
Lead, Acetate, in Post-partum Hemorrhage 166
Sulphate of Cinchonidia 167
F. Broughton, G. W. R., Hamilton 197
Absence of Anus and Perineum—Dr. Towler 198
Ether in Suspended Animation—Dr. Powell 198
Large Stone—Dr. D. W. Lundy 198
The Contract System 237
Affiliated Medical Schools 238
G. W. R. Medical Tariff 239
Medicus 239
Piliferous Sebaceous Cyst 240
Res Rara Admiranda 301
A Queer case of Midwifery 301
Medical Witnesses in Police Courts 302
H. B. Baker, Lansing 326
Deafness, Trephining Tympanum in 57
Death-rate, Montreal 23

PAGE

Degrees, British Medical and Colonial pretensions..... 334
Delayed Ligature of the Funis..... 338
Diabetes, Diet and Medication in..... 118
Diabetes, Salicylates in..... 147
Diphtheria and Diphtheritic Croup, Practical Observations on the treatment, by A. H. Chandler, M.D., Dorchester, N. B..... 262
Diphtheria, Sylicylic Acid in..... 221
Diphtheria, Prognosis and treatment—Smith..... 174
Diphtheria, Tracheotomy in..... 182
Diphtheria and its treatment..... 183
Diphtheria, Blood in..... 208
Diphtheria, nature and treatment, by Wm. Sloan, M.D., Blyth, Ont..... 1
Disease, Germs of..... 25
Dislocation of Hip, New Method of Reducing..... 221
Dislocation, two uncommon forms..... 326
Dysentery, Ipecac. in large doses..... 18, 156
Dysentery, local treatment..... 146
Dyspepsia, treatment of..... 27
Eczema, Collodion Flexile in..... 180
Elastic Bandage in Ulcers..... 303
Electrolysis in Scrofulous Glands..... 336
Empyema, Surgical treatment..... 17
Empyema, Carbolated Iodine in, by J. Fulton, M.D., M.R.C.S., Toronto..... 34
Emerald Green, poisonous effect of..... 188
Endocarditis and Pericarditis—Flint..... 77
Epithelioma of Cervix Uteri..... 118, 172
Epilepsy, Brown-Sequard's treatment..... 312
Epilepsy, Iron in..... 176
Epilepsy, Means of preventing attacks—Brown-Sequard 270
Ether as an Anæsthetic..... 18, 62
Ether, Deaths from..... 156
Ethyl Iodide in Asthma..... 311
Examinations—Trinity Medical School..... 284
" —McGill College..... 285
" —Bishop's College..... 285
" —Queen's College..... 285
Fever, ranging between Bilious and Typhoid, by Alex. Bethune, M.D., Wingham, Ont..... 353
Fistula, Recto and Vesico-Vaginal, Closure of Vulva.. 140
Fistula, Recto-Vaginal operation..... 131
Fœtal Auscultation, Discoverer of..... 221
Fœtus, effect of medicines on..... 18
Fœticide..... 93
Forcible Flexion in Fibrous Adhesions, by J. Gardner, M.D., Hespeler, Ont..... 33
Fracture of Clavicle, New Method of treating, by H. Van Buren, M.D., Chicago, U. S..... 100
Fracture of Femur, treatment—Hamilton..... 134
Fracture, Causes and treatment of Delayed Union, by James Cattermole, M.D., London..... 193
Fracture of Skull, Depressed, Trephine in..... 85
Fracture of Femur, Impacted..... 247
Fracture of the Neck of Femur in Adults—Hamilton.. 268
Fracture, Ununited, Resection in..... 274
Fracture of Femur in Children..... 278
Fracture of Patella, New operation..... 311
Galvanism, Diseases in which useful..... 88
Ganglion, treatment of..... 308
Genital Irritation, a cause of Nervous Disease, by Geo. M. Aylesworth, M.D., Collingwood, Ont..... 99
Glandular Swellings, treatment..... 19
Goitre, Iodine injections in..... 253
Government Establishments, Hospitals..... 376
Gout, Benzoate of Lithium in..... 29
Gout, Salicylic Acid in..... 59
Graves's Disease (Exophthalmia)..... 81
Growth in the Human Family..... 188
Hæmoptysis, Ergotine in..... 306
Head, Injuries of—Erichsen..... 204
Health Resorts, Elevated Positions..... 157
Health Report, New York..... 254

PAGE

Heart Disease, Clinic—Flint..... 6
Heart, Fatty Degeneration of..... 79
Hepatic Cyst, Clinic—Gaillard Thomas..... 361
Hernia, Scrotal—Jackson (McCarthy)..... 369
Hernia, The Authors who wrote on it and its treatment prior to the 18th Century, by J. R. Alexander, M. D., Montreal, Que..... 68
Hernia, Complicated with Malposition of the Testicle, by V. A. Brown, M.D..... 321
Hernia, Strangulated Femoral, by W. N. Campbell, M.D., New York..... 194
Hernia, Strangulated Inguinal, three cases—Sac not Opened..... 209
Heroic Conduct Rewarded..... 125
Hip Dislocation, New Method of Reducing..... 221
Hip-joint Dislocation, Easy Method of Reduction..... 18
Hip Disease in Children, Diagnosis of..... 88
Hoarseness, Borax and Potassium Nitrate in..... 307
Hoarseness, Nitric Acid in..... 157
Homœopaths in Difficulty..... 342
Honey, Poisonous..... 187
Hospitals, Government Establishments..... 376
Hospital for Insane, Halifax..... 251
House Drainage, Defects of..... 21
Hot Water Treatment in Post-partum Hemorrhage—Lombe Athill (Whitwell)..... 367
Hydrocele, Alcohol in treatment..... 220
Hydrophobia, Buisson's Cure for..... 143
Hydrothorax, Clinic—Flint..... 13
HOSPITAL REPORTS, TORONTO—
Typhoid Fever, Perforation..... 95
Inguinal Hernia in a Female..... 95
Vesical Calculus, Lithotrity..... 95
Perforation of the Stomach..... 189
Idiopathic Amyloid Disease of the Liver, Kidney and Spleen—Julius Pollock..... 370
Iliac, External, Ligature for Aneurism..... 4
Ileum, Intussusception of, by W. A. Willoughby, M.D. 97
Improper Registration..... 125
Insurance Companies, Imposition of..... 87
Intestinal Obstruction, Enterotomy..... 107
Infant Mortality, Cause of..... 116
Intra-Uterine Medication, by J. Cattermole, M.D..... 323
Injurious Effect of Mercurial Amalgams as Teeth Fillings..... 375
Inexpediency of Physicians Dispensing Drugs..... 185
Iodine, Churchill's Tincture..... 310
Iodoform, Therapeutic uses of..... 210
Ipecacuanha, Large Doses in Dysentery..... 18
Iron, When not to give—Fothergill..... 115
Iron, Dialyzed, in Arsenical Poisoning..... 133
Iron in Epilepsy..... 176
Iron, Dialyzed, in Arsenical Poisoning, by Jas. Hayes, M.D., Simcoe, Ont..... 196
Iron, Dialyzed, Hypodermically..... 284, 309
Iron and Cod-liver Oil, Administration of..... 368
Iron, Dialyzed..... 20
Iron, Albuminate..... 29
Ivy-poison and its Remedies..... 60
Jefferson Medical College..... 126
Keep the Mouth Closed..... 217
Kidney, Hydatid Tumor Removed..... 144
Kidney, Removal of..... 32
Knee-joint, Indication for Drainage..... 172
Knee-joint Amputation..... 3
Knee-joint, Aspiration of..... 312
Labor, Anæsthetics in..... 141
Lactopeptine..... 254
Lady Doctors..... 23
Lady with Two Heads..... 342
Lady Practitioner in Disguise..... 214
Laparo-Elytrotomy as a Substitute for Cæsarean Section..... 304
Laryngograph..... 90

INDEX TO VOL. X.

PAGE

Larynx, Extirpation of 179
Lead Poisoning, Singular Source of 57
Lead, Acetate, in Post-partum Hemorrhage, by J. Newell, M.D., Springfield, Ont 165
Lead, Acetate, in Post-partum and other Hemorrhages, by J. Workman, M.D., Toronto 129
Leprosy, Treatment by Gurjon Oil 7
Leucocythæmia, Phosphorus in 143
Lime-Juice, Specific Action of in Acute Rheumatism, by A. H. Chandler, M.D., Dorchester, N.B. 65
Lithotomy by the Rectangular Staff 276
Liver, Abscess of 51
Liver, Kidney and Spleen, Idiopathic Amyloid Disease of the—Julius Pollock 370
Liver, New Function of 332
London Medical Societies 371
London, the City of the World 20
Longevity 342
Lower Limbs, Unequal Length of 311
Lumbar Abscess, New treatment 280
Lusus Naturæ 250
Lymphatic Glands, Removal of 119
Malignant Growths, Inoculability of 312
Malposition of the Testicle, by V. A. Brown, M.D., London, Ont 321
Maternal Impressions, Two Cases, by H. M. McKay, M.D., Woodstock 234
Maxilla, Superior, Excision of 213
Meckel's Ganglion, Removal of 76
Medical Contract System 219
Medical Legislation 220
Medical Council, Election to 188
Medical Legislation in Illinois 142
Medical Education in Quebec 184
Medical License Case, Montreal 185, 220, 285, 319
Medical Board, Ontario 186
Medical Council of Ontario, Representation in 155, 187
Medical Items and News 20, 57, 120, 373
Medical Societies, London 371
Medical Bill 374
Medical Profession in Proportion to Population 285
Medico-Legal Case 24
Membranes, Rupture of in Labor 110
Meningitis, Tubercular 104
Michigan State Medical Society 320
Milk of Magnesia 254
Mineral Springs, St. Cuthbert, Que. 187
Mortality among Children 339
Nervous System, Diseases of—Brown-Sequard 199
Neuromata of the Stump after Amputation of the Arm, by J. M. Smith, M.D., Morpeth 267
Neuritis, Involving Brachial Plexus 113
New Instruments 92, 286, 314
Night Sweats, Atropine in 286
Nipples, Fissure of, treatment 20
Notes and Comments 27-29, 63, 127, 188, 320, 377
Novel Experiment—Fuller 92
Obesity, Prevention of 251
OBITUARY NOTICES—
Dr. Somerville Scott Allison 27
Dr. E. M. Hodder 215
Occlusion and Rupture of Subclavian Vein, Death, by Charles Black, A.M., M.D 2
Ontario Medical Council 155
Ontario Medical Council, Minutes and Proceedings 344
Ontario Medical Council, Early Meeting 220
Operations, Advertising of 94
Ophthalmia Neonatorum 275
Ovarian Tumor in a Child 28
Ovarian Cyst, Complicated with Pregnancy 116, 156
Ovarian Disease, with Abscess in Iliac Region, by J. R. Hamilton, M.D., Stratford 235
Ovariotomy, Double, by A. Groves, M.D., Fergus, Ont 195

PAGE

Ovariotomy, by Prof. McLean, Ann Arbor, Mich 214
Ovariotomy during Pregnancy 29
Ovariotomy, Remarks on, with an Appendix, by J. Rosebrugh, M.D., Hamilton 225, 257, 289
Oxygen, Liquefaction of 341
Pancreas in Diabetes 214
Paper Legs and Arms 24
Paper Lint 343
Paracentesis Pericardii—McLeod 10
Paracentesis Pericardii—Pepper 242
Paracentesis Pericardii, Analysis of 41 Cases 212
Paresis, by W. Workman, M.D., Toronto 357
Paris Exhibition 365
Past Year 149
Patella, Treatment of Fracture 49
Penge Case 121
Pericarditis and Endocarditis—Flint 77
Perineum, Laceration of 25
Personal 64, 95
Pessary Catheter in Bladder Affections 308
Physical Culture 340
Phthisis, the Unity of 303
Phthisis, Contagiousness of 282
Phosphozone 284
Phospho-Nutritine and Milk of Magnesia 92
Photophobia of Scrofulous Children, Opium in 117
Phthisis, Open Air treatment 144
Phthisis, Smoking Arsenic in 61
Pilocarpine, Nitrate of 19
Plaster Casts in Talapes, by Dr. Burrows, Lindsay, Ont. 356
Placenta Prævia, Prophylaxis 8
Post-partum Hemorrhage, New Method of using Iron in 87
Poisons, Remedy for 342
Poisoning from Carbolic Acid, by J. H. Ryan, M.D., Sussex, N. B. 324
Pott's Disease, Sayre's Apparatus 9
Post-partum Hemorrhage, Hot Water Treatment—Lombe Athill (Whitwell) 367
Post-mortem Examinations 314
Post-mortems in Criminal Cases 153
Pregnancy, Fallopian 331
Presentation 286
Prostate, Enlarged, treatment 338
Professional Standing, Value of 147
Prostatic Tumor Removed in Lithotomy 246
Psoriasis, Acetic Acid in 214
Psoriasis, Chrysophanic Acid in 155
Puerperal Antiseptics 371
Puerperal Convulsions, Notes on, by E. G. Kidd, M. D., Manotick, Ont 266
Puerperal Fever 328
Quinine Wine, Composition 26
Quinine, Action on White Corpuscles 336
Ranula, treatment of 132
Reciprocity in Medical Registration 249
Rectal Alimentation, Prolonged 333
Rectum, Prolapsus of 17
Red-Cross Surgeons, Obligations of 181
Rest as a Therapeutic Agent 13
Rheumatism, Malignant, Acute 146
Rheumatism, Salicylic Acid in, by W. F. Savage, M.D 325
Rosin Weed 187
REPORTS OF SOCIETIES—
Huron Medical Association 29, 188
Michigan State Board of Health 30, 147, 255, 343
American Pharmaceutical Association 31, 62
Canada Medical Association 51
Brant County Medical Association 63, 148
Western and St. Clair Medical Association 222
Union Medical Association 256
Oxford County Medical Association 256
Toronto Medical Society 316
Erie and Niagara Medical Association 317
Ontario Medical Council 344

	PAGE
Salicine for Chills	50
Sanitary Boards	216
Sanitary Committee, Legislative	218
Sensible Remarks	94
Scarlatina by Letter	248
Scarlatina, Puerperal	279
Scarlet Fever, Restriction and Prevention of	12
Sciatica, Actual Cautery in	280
Scirrhous Cancer of the Rectum, by Thomas S. Barclay, M.D., Detroit	299
Scirrhus of Breast in the Male	342
Scrotal Hernia—Jackson (McCarthy)	369
Shoulder Dislocation, New Method of Reducing	145
Sleeplessness and its treatment	211
Small-pox, Hemorrhagic	330
Sore Throat, treatment	87
Spencer Wells, Resignation of	182
Spleen, Excision of	248
Splints, Paper	19
Stenosis of Tricuspid Orifice—Howard	248
Stomach, Perforating Wound, Recovery	50
Stone in the Bladder, Surgical treatment	307
Stone of Bladder, Large	182
Stone, Cutting for, Three Centuries ago	131
Strabismus and its Operations, by A. Alt, M.D., Toronto	70
Surgery, Past and Present—Wells	45
Syphilis and Marriage,	15
Talapes, Plaster Casts in, by Dr. Burrows, Lindsay, Ont.	356
Talking Machine	319
Tearless Madness	182
Teeth Fillings, Injurious Effect of Mercurial Amalgams	375
Telephonic Auscultation	220
Tenement Houses, Inspection of	25
Tetanus, treatment of—Wood	83
Tetanus, Traumatic, by Dr. Lawson, Halifax	241
The late Dr. Hodder	254
Thermometers first used	62
Thoracentesis, Recent Cases	106
Thrombotic Occlusion of Coronary Artery	279
Thrush, treatment of	127
Thymol as an Antiseptic	254
Tobacco, Poisoning with	142
Tonsils, Excision, Arrest of Hemorrhage	85
Toronto Asylum Report	252
Toronto General Hospital	252
Toronto Mortality for 1877	253
Toronto Medical Society	284, 315, 378
Toronto School of Medicine—Annual Dinner	126
Tracheotomy, Bloodless	245
Tracheotomy, New Method	120
Translations from Foreign Journals	103, 359, 360
Trinity Medical School—Annual Dinner	126
Trinity College Convocation	127, 319
Trinity Medical School	318
Trinity Medical School Council Representation	156
Tumors, Abdominal, Lectures on Diagnosis and Treatment—Spencer Wells	363
Tumor of Lower Jaw, Removal without External Wound	84
Turkish Army Medical Service	125
Typhoid Fever, Convulsions in—DaCosta	137
Typhoid Fever, Contagion of	28, 62
Typhoid Fever, Renal form	336
Tympanum, Trephining in Deafness	57
Unique Case	308
University of Toronto Medical Examinations	318
Unorganized Ferments	329
Uterus, Inversion, Recovery	47
Uterus, Conoid Cervix, treatment	112
Uterine Fibroids, Ergot in	116
Uterus, Fibroid, Removal with Ovaries	119
Uterus, New Material for Dilating Os	144
Uterus, Subinvolution of—Thomas	168
Uterus, Epithelioma of Cervix	172
Uterus, Retroflexion of—Thomas	182
Uterine Hemorrhage, Secondary, by A. D. Millar, M.D., New Dundee, Ont	232
Uterine-intra, Medication, by J. Cattermole, M.D., etc.	323
Vaccination Act, British	91
Vaccination, Doubts of the Value of	122
Vaginismus, treatment—Thomas	117
Valvular Lesions—Loomis	75
Varicocele, New Mode of treating	311
Vaseline and Salicylic Acid in Obstetrics	74
Vaso-Motor Mechanism	86
Vesico-Vaginal Fistula, with Prolapsus Uteri, by J. M. Smith, M.D., Morpeth, Ont.	299
Victoria College, Medical Department	187
Virus, Action of Sunlight on	94
Vomiting of Pregnancy, Ingluvin in	114
Warm-blooded Animals Converted into Cold	333
Warren Triennial Prize	156
Well-deserved Punishment	63
White Blood Corpuscles, Migration of	333
White Corpuscles in Coagulation of Blood	336
Women, Admission to Medical Degrees	212
Worms, Prevention of in Children	22
Writer's Cramp	286

THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

VOL. X. TORONTO, SEP. 1ST, 1877. No. 1.

Original Communications.

THE NATURE AND TREATMENT OF DIPHTHERIA.

BY WM. SLOAN, M.D., BLYTH, ONT.

(*Read before the Huron Medical Society.*)

MR. PRESIDENT:—In the remarks I have to submit on this occasion I do not intend to enter upon the etiology or pathology of the disease, but merely to make a few suggestions which have occurred to me in observing this troublesome and in some cases unmanageable affection.

Since our last discussion on this subject, some 18 months since, I have taken notes of my cases 47 in number, and have observed each case as closely as possible. It appears to me that diphtheria is a local disease, primarily, and by absorption through the veins, and the glands of the neck, and through them poisoning the circulation, produces not the symptoms of septicæmia, but a fever, running an uncertain course, and not limited like the exanthemata to any particular period. I have frequently seen all the symptoms of acute fever with membranous exudation on the fauces, subside in 24 to 48 hours, and the patient enter on convalescence, while we frequently find similar cases in which, at the end of 14 days, the exudation is still reproduced, and the debility and prostration of the most alarming character. In addition to the ordinary reasons adduced in favor of the local origin of the disease, I would mention the fact that of the 47 cases, the first in a house have always been the worst, having been neglected, while subsequent cases being promptly treated, by astringents, &c., usually recover. For instance, my 4 fatal cases were all in families of children, one was followed by 2 others, one by 3, one by 4, and one by 6, of which all recovered, many of them without any febrile symptoms. Trousseau upholds the view of the local origin of the affection, and his illustrations are very striking and conclusive. Ziemssen leans to the same view, and his theory as to the mode in which the micrococci developed in the fungus, enter the circulation between the interstices of the epithelial cells is highly ingenious. Roberts, while holding to the view that the disease is constitutional, and the exudation merely a symptom, like the eruption of scarlatina, urges upon us the advantage of limiting the spread of the exudation by caustics, &c. *Query.* If it be only a symptom, wherein consists the philosophy of trying to limit it any more than the pursuance of a similar course in measles and smallpox?

As to prognosis the larger the extent of the exudation the more serious the symptoms. In 5 cases in which the fauces, veil of palate and pharynx were covered as far as could be seen, 4 proved fatal. Trousseau's remark that a tawny appearance of the membrane indicates a severe case, seems to be well founded, and I have also found that the more adhesive the membrane the worse to deal with. There are some cases which adhere like wax, in which it is almost impossible to remove it without more violence than we would like to employ, I don't like these cases. Rapid enlargement of the glands of the neck indicates malignancy. If the cellular tissue covering the glands become involved within 36 hours of the appearance of the fungus in the throat, the case is serious. It indicates that the virus is particularly active, or that the system is in a peculiarly favorable condition for its multiplication. There does not seem to be any real danger so long as the glandular engorgement is of a moderate character, excepting the disease should affect the larynx, when serious croupal symptoms might supervene.

I lost one case, No. 6, for want of attending to a precaution, which, as I have not seen mentioned by any author, I will mention here. J. O., female, æt. 13, severe case, had fever, glandular engorgement, both sides, and pharynx coated with deposit when first seen, but under the influence of remedies improvement took place, and in four days the throat was clear and the patient convalescent. In five days more the patient was up and seemed perfectly well, with one peculiarity, that in the recumbent position the pulse was 90, while when erect it was 120. Three days after, when engaged in some domestic labour, she fainted and

No. .....

BOSTON
MEDICAL LIBRARY
ASSOCIATION,
19 BOYLSTON PLACE.

THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

VOL. X. TORONTO, SEP. 1ST, 1877. No. 1.

Original Communications.

THE NATURE AND TREATMENT OF DIPHTHERIA.

BY WM. SLOAN, M.D., BLYTH, ONT.

(*Read before the Huron Medical Society.*)

MR. PRESIDENT:—In the remarks I have to submit on this occasion I do not intend to enter upon the etiology or pathology of the disease, but merely to make a few suggestions which have occurred to me in observing this troublesome and in some cases unmanageable affection.

Since our last discussion on this subject, some 18 months since, I have taken notes of my cases 47 in number, and have observed each case as closely as possible. It appears to me that diphtheria is a local disease, primarily, and by absorption through the veins, and the glands of the neck, and through them poisoning the circulation, produces not the symptoms of septicæmia, but a fever, running an uncertain course, and not limited like the exanthemata to any particular period. I have frequently seen all the symptoms of acute fever with membranous exudation on the fauces, subside in 24 to 48 hours, and the patient enter on convalescence, while we frequently find similar cases in which, at the end of 14 days, the exudation is still reproduced, and the debility and prostration of the most alarming character. In addition to the ordinary reasons adduced in favor of the local origin of the disease, I would mention the fact that of the 47 cases, the first in a house have always been the worst, having been neglected, while subsequent cases being promptly treated, by astringents, &c., usually recover. For instance, my 4 fatal cases were all in families of children, one was followed by 2 others, one by 3, one by 4, and one by 6, of which all recovered, many of them without any febrile symptoms. Trousseau upholds the view of the local origin of the affection, and his illustrations are very striking and conclusive. Ziemssen leans to the same view, and his theory as to the mode in which the micrococci developed in the fungus, enter the circulation between the interstices of the epithelial cells is highly ingenious. Roberts, while holding to the view that the disease is constitutional, and the exudation merely a symptom, like the ernption of scarlatina, urges upon us the advantage of limiting the spread of the exudation by caustics, &c. *Query.* If it be only a symptom, wherein consists the philosophy of trying to limit it any more than the pursuance of a similar course in measles and smallpox?

As to prognosis the larger the extent of the exudation the more serious the symptoms. In 5 cases in which the fauces, veil of palate and pharynx were covered as far as could be seen, 4 proved fatal. Trousseau's remark that a tawny appearance of the membrane indicates a severe case, seems to be well founded, and I have also found that the more adhesive the membrane the worse to deal with. There are some cases which adhere like wax, in which it is almost impossible to remove it without more violence than we would like to employ, I don't like these cases. Rapid enlargement of the glands of the neck indicates malignancy. If the cellular tissue covering the glands become involved within 36 hours of the appearance of the fungus in the throat, the case is serious. It indicates that the virus is particularly active, or that the system is in a peculiarly favorable condition for its multiplication. There does not seem to be any real danger so long as the glandular engorgement is of a moderate character, excepting the disease should affect the larynx, when serious croupal symptoms might supervene.

I lost one case, No. 6, for want of attending to a precaution, which, as I have not seen mentioned by any author, I will mention here. J. O., female, æt. 13, severe case, had fever, glandular engorgement, both sides, and pharynx coated with deposit when first seen, but under the influence of remedies improvement took place, and in four days the throat was clear and the patient convalescent. In five days more the patient was up and seemed perfectly well, with one peculiarity, that in the recumbent position the pulse was 90, while when erect it was 120. Three days after, when engaged in some domestic labour, she fainted and

expired instantly. Nos. 25 and 36 were similarly affected, but by insisting on rest in bed till the system gained strength they both did well.

Treatment. I consider local treatment as of the first importance. I prefer tinctura ferri mur. pure, or variously diluted with glycerine. It loosens the membrane the best of anything. I tried Kerr's and Monsel's solutions, but they did not seem to act so favourably. I tried the chlorine water on four cases, in the mode directed in the CANADA LANCET, but soon discontinued it. Salicylic acid pure, or with an equal quantity of tannic acid, after the membrane has been removed by the iron, dries up the surface better than any other application, and the same mixture is the best that can be blown in the nostrils when the membrane extends thither. Three cases had discharge from the anterior nares, and all recovered. Salicylic acid gives little or no pain, an important matter. I have given up the application of muriatic acid, because it is so painful. Alum and honey every second hour, alternating with the salicylic acid and the iron three times a day, appear to satisfy me better than any other applications. Gargles for those old enough to use them, of chlorate of potassa, sulphurous acid, tincture of iron, and glycerine, diluted, are excellent; and the same, with the addition of quinine, in tonic doses internally every four hours. All the food we can introduce, and stimulants whenever debility becomes apparent, will not be disputed by any one. The mode of making the applications is important. Instead of the swab in use years ago, which choked the poor children, and by which the remedies were applied indiscriminately to the healthy and diseased surface, I now use a small brush with which the solutions can be applied to the parts indicated, as well by lamplight as during the day, and of which, after one or two applications, the children have no dread. They cost four cents each, and I supply each patient with one. I believe that many children are lost for want of the remedies being properly applied to the diseased surface.*

Of the 47 cases, 43 recovered, four died; one of those I have already referred to. The other three were *in extremis* when first seen; all in a state of complete aphonia, proving that the disease had extended to the larynx.

* A strip of fat salt pork, four inches wide, extending to the ears on each side, brings out an eruption resembling croton oil, and seems to reduce the swelling of the neck. I use it now in every case whenever swelling of the glands appear.

DEATH FROM OCCLUSION AND RUPTURE OF THE SUBCLAVIAN VEIN.

BY CHARLES BLACK, B.A., M.D., UNIVERSITY OF MICHIGAN.

The notes of the following case possess many points of interest, and throw some light on those obscure lesions that are frequently met in practice. In the fall of '76 Mr. J. F. Curry, æt. 26, of the Senior class in the Department of Medicine and Surgery in the University of Michigan, received an injury on the left shoulder, while engaged in a game of foot-ball, fracturing, as he thought, the second rib. No fracture was, however, diagnosed. He suffered severe pain for several days in the clavicular region, and for some time after was unable to use his left arm with freedom. On the 12th of March while in the University hall he had a rigor and felt severe pain in the left shoulder.

The next day he was seen by Dr. McLean, Professor of Surgery, who, observing that the shoulder was swollen, and that there was some tenderness, thought he had a rheumatic attack, and advised a blister and rest. For several days there was but little change, till the 18th when symptoms of a very grave character manifested themselves. Temperature 104°—106°; intense pain in the clavicular region, and along the course of the brachial plexus. Countenance anxious; was ordered anodynes. Prof. McLean now suspected thrombosis, and the patient was seen by other members of the faculty. Swelling and tenderness extended to near the elbow joint, with obscure sense of fluctuation. A free incision was made in the arm from which oozed about six ounces of venous blood. Pain continued to increase, and he was kept under the influence of anodynes. On the 24th pleuritic friction sound was heard over the left lower lobe. On the morning of the 25th, patient seemed better, sat up in bed, and expressed a determination to go to University Hall on the 28th to receive his degree. In the afternoon, however, there was a change for the worse; rapid sinking; agonizing pain; swelling increased over the entire clavicular region. The symptoms continued with increased severity, till 10 o'clock Monday 26th, when death put an end to his sufferings.

At the post-mortem, made four hours after death by Professor McLean, assisted by the writer, the

following appearances were noted; subcutaneous venous congestion in axillary region; large clot under the pectoral muscles and clavicle, much effusion of blood in the axilla and mammary region; the brachial plexus of nerves closely adhered together by inflammatory new formation. All the tissues in the neighborhood infiltrated with blood; freshly formed adhesions between the pleura costalis and pleura pulmonalis of left side; deep cervical lymphatic glands enlarged; subclavian vein bound down by inflammatory formation causing obstruction and rupture; large blood clot under the biceps; small amount of pus in left pleura; slight adhesions in left pleura due to secondary inflammation; no trace of fracture in any of the ribs. The second rib had, however, been injured, as the periosteum could be readily scraped off with the handle of the scalpel. This injury had caused deep seated inflammation which extended to all the tissues in the clavicular region, and had occluded the subclavian vein, causing its rupture. The case during its entire progress was a very obscure one, and was only explained by the post-mortem examination.

Mr. Curry was one of the most distinguished members of the medical class, and held the position of house surgeon to the State Hospital. It was certainly sad that on the very day he expected to receive his degree, his remains should have been laid in the grave.

Correspondence.

To the Editor of the CANADA LANCET.

SIR,—At Vittoria, in the County of Norfolk, there is a quack named Gates, whom detective Smith twice fined this summer. He had been fined a number of times previously, but he still goes on *pill*aging as if nothing had occurred; in fact it seems to be a good way to keep his name prominently before the public. He manifests no symptoms of being the "Gates Ajar," and if Mr. Smith gets rid of him he will have to do as Samson did with the gates of Gaza. In a late number there was something about the "goose that laid the golden eggs," and I have come to the conclusion that Vittoria has Smith's "goose."

Yours truly,

EX CONCESSO.

Charlotteville, Feb. 23, 1877.

Selected Articles.

AMPUTATION THROUGH THE KNEE-JOINT, WITH REMARKS.

Case I. O. S., aged fifteen years, a well-developed mulatto boy, in December, 1873, fell while getting from a wagon which was in motion, and struck the upper part of his left leg against the iron of the wheel. The blow was followed by an inflammation of an acute character which terminated in an abscess of the head of the tibia. This had opened externally. I first saw him in June, 1874, when I found the upper end of the bone much enlarged. The leg was curved inward so much that when he stood erect the left foot crossed the right ankle, and did not touch the ground. There were several openings on the anterior upper half of the leg, from which pus flowed freely; the skin was thin and brown in color, and the periosteum was separated from the anterior upper half of the bone. A probe passed through the upper opening an inch and a half into the bone, upwards and backwards towards the joint, which contain a moderate amount of fluid.

He does not remember when the abscess burst, but thinks it was some three or four months since.

June 15th. His general condition was good, but the bone was so extensively diseased that I thought it best to amputate the limb through the knee-joint which I did by the circular method. The patella had been displaced inward by the curving of the limb, and did not fit well between the condyles of the femur, so I removed it. He suffered but little constitutional disturbance after the operation. Before it, his pulse was 78, and after it 90; and it fluctuated for several days between 90 and 100. At no time after it did the temperature rise above 100°. The stump healed readily; the ligatures came away June 22d, and on the 28th he was walking about on crutches.

During the after-dressing of the stump care was taken to draw the edges of the flap well backward, so that when the wound healed the cicatrix would be along the posterior border of the condyles of the femur, where it has remained to the present time.

Examination of the limb after removal showed the periosteum to be extensively separated from the anterior surface of the bone, which was much roughened and bathed in pus. Upon section of the bone with a saw the abscess was found to be very large; it extended upward nearly to the articular cartilage. The effusion into the joint was found to be synovial in character. Without going farther into the details of its pathological appearance, I will state that it appeared to me to bear a close relation to, if it was not identical with, what Markoe * describes as "chronic sinuous abscess of bone." The disease was too far advanced to fol-

*Disease of the Bones, page 33, et seq.

low the treatment advised by him, namely, the chiseling out of the whole of the diseased bone. The bone after maceration was deposited in the Army Medical Museum at Washington; specimen No. 6659 Surgical Section.

Case II. Fred Q., aged eleven years, while running behind a wagon, May 23, 1876, got his right leg caught between the spokes of the wheel which was revolving rapidly, and received a compound comminuted fracture of the tibia and fibula, with extensive laceration of the muscles. The periosteum was stripped clean from the bones for about five inches. This was probably done by the twisting of the leg in the rapidly revolving wheel.

At three o'clock P. M., about four hours after the reception of the injury, I saw him in consultation with his attending physician, Dr. C. H. Masten. He had in a great measure recovered from the shock of the injury, and was lying upon his bed apparently unconcerned about it. There being no hope of saving the leg, I amputated it through the knee-joint, by the circular method, making the incision in this case about three inches below the lower border of the patella, which *was not* removed.

Everthing did well after the operation. He suffered little or no constitutional irritation; the stump healed rapidly; the ligatures came away in due time, and in two weeks after he was out-doors on crutches. In dressing the wound care was taken, as in the preceding case, to keep the line of cicatrix well back from the face of the stump, where it has since remained, so as to avoid pressure upon it, should he wear an artificial limb.

Remarks: It will be noticed that both subjects of this operation were boys, and that one amputation was done for chronic disease, the other for an acute traumatic injury. Both were done by the circular method. In one case the patella was removed; in the other it was left *in situ*. Little or no constitutional disturbance followed either operation, and the stumps healed rapidly. They are broad and firm, and afford an excellent support for an artificial limb, far superior to any thigh stump or even to the knee after amputation of the leg at the point of election. I do not find that there is any difference in the utility of the stump, whether the patella be retained or removed. The danger to life is much less than amputation through the thigh; and the liability to osteomyelitis and pyæmia, with the consequent fatality, is a great deal less than after amputation through the continuity of the femur, or through the tibia and fibula. In view of these facts, after considerable personal experience in, and after extended observation of, amputations through the continuity of long bones, I am led to the conviction that—other things being equal—all amputations in the continuity of long bones in the vicinity of joints should be avoided, where it is possible to disarticulate from the lower aspect of the articulation whether in the lower or upper extremity, with one exception, namely, that of the *elbow*-joint. This exception is apparent for very obvious reasons.

To the elaborate papers of Markoe, in the *New York Medical Journal* for March 1868, and of Brinton, in the *American Journal of the Medical Sciences* for April, 1868, the reader is referred for much valuable information concerning this amputation. Their able discussion of this subject has left but little to be said by subsequent writers; but the reports of additional cases will tend to confirm or modify their conclusions.—*Dr. Mursick, Boston Medical Journal.*

LIGATURE OF THE EXTERNAL ILIAC FOR THE CURE OF ANEURISM.

BY O. PEMBERTON, F.R.C.S. ED., BIRMINGHAM.

Mr. ——, aged forty-eight, an active, well-built, wiry man, having lived all his life in a mountainous district, and engaged enthusiastically in field sports, especially hunting, came to me on the 11th of January, 1876, to ask my opinion about his left leg.

Uncovering the limb, I saw at a glance that he had an aneurism at the point of Scarpa's space, and was thinking in my own mind how eligible it looked and he looked for any form of treatment, when he called my attention to the popliteal space, where I found a second; but this was not all, for, now desirous to finger the course of the vessel above, I was soon arrested by a third underneath and some way above Poupart's ligament. He informed me that he had noticed the tumour in the popliteal space a little more than six months; the one at Scarpa's point not more than two; whilst the one beneath Poupart's ligament he learned the existence of from myself this day for the first time. Proceeding in my examination, I found I could stop all pulsation in the three aneurisms by pressure on the external iliac, which I was glad to feel, as high as I could arrest the blood-current with my finger, seemingly unaffected by disease. Also I found the heart's sounds natural, and the pulse quiet and regular. In regard to size, the uppermost aneurism was as large as a full-sized hen's egg; the middle one—rapidly increasing—as large as an orange; whilst the lowermost ranged between the two. There was but faint bruit anywhere, no œdema, and pain moderate; indeed so little disability, in his mind, did he consider there to be in the limb, that he walked from the station to my house—a considerable distance—as if nothing was wrong with him.

He informed me that he had contracted syphilis seven years since, and had encountered secondary symptoms in the shape of sore-throat and iritis, that his ordinary life was strictly moderate and temperate, and that he had never been laid up with sickness. . . . . .

Operation.—On Jan. 25th, in the presence of Mr. Crompton, and assisted by Mr. Goodall and Mr. Bennett May, ether being rendered completely effective by Mr. Lloyd Owen, I exposed the upper part of the external iliac artery by a free incision running considerably higher than the one ordinarily adopted in Abernethy's method. I had little difficulty by this means in applying the ligature around the vessel as close to the bifurcation as possible and as far from the sac, the fusiform expansion of which, notwithstanding, was clearly in view. The ligature employed was one of catgut, specially prepared for the case by Prof. Lister. Admirably round, firm, yet flexible, it seemed to be the perfection of a material for the purpose ; moreover intended to be absorbent, but, as the sequel will show, this property it did not possess. In these proceedings, happily, there were no mishaps. The peritoneum, although necessarily handled in uncovering the artery so high up, was not injured, and not a single vessel in the wound required tying. As soon as both ends of the ligature had been cut off close, the edges of the wound were closed by silver sutures, during which an abundant carbolic spray was showered on the parts involved, and finally the whole were covered in by the ordinary complete antiseptic dressings. In the limb, pulsation ceased in all the aneurisms at the same moment of tightening the ligature ; this was then carefully wrapped in cotton-wool from toes to groin, and elevated. Four hours afterwards he complained of severe burning pain in the toes and foot, the temperature of which registered only 80°, and had a blanched appearance. In seven hours the pain was intense, particularly around and above the ankle ; also there were marked capillary stasis and lividity about lower part of leg and dorsum of foot. Pulse 106, perspiring profusely. Half a grain of morphia injected.

The following day the toes and anterior part of the foot were blanched and insensible to touch, whilst a circle of increased sensibility existed around the ankle.

From this time I may narrow the account of the gangrene. For about three weeks it gradually spread, bit by bit, up the leg until a line of separation seemed fairly defined at the junction of the middle with the lower third of the limb. This, however, did not hold its ground, and in the weeks following slowly the death went on until at one time I feared for the knee. This, however, held its vitality so as to enable me with the aid of a good piece of skin and muscle from the inside, to fold a covering round for a stump, compelled to be formed by sawing through the bones two inches below the head of the tibia. All else had perished, and it was not until the 26th of April, for reasons which I shall subsequently relate, that I ventured to remove the dead from the living parts—exactly ninety-two days from the operation, and this was accomplished without the loss of more than a few drops of blood.

As to the treatment of the limb during this three months of gradual decay, all my endeavours centered themselves in maintaining the gangrene dry, and if possible antiseptic. For this purpose, Prof. Lister suggested to me to envelope the parts in carbolised cotton wool, prepared by dissolving carbolic acid in sulphuric ether, and saturating the wool with it. I did this, and succeeded for many weeks in keeping all sweet. At length the deeper and thicker parts in the calf overcame my precautions. These set up profuse discharges, which, added to those from the granulating surfaces, became fetid, and imperilled life by setting up hectic and irritative fever of a septic type, whilst the foot and lower third of the leg were as completely mummified as it was possible, and were able to be left bare. I was forced to dress the upper parts with antiseptic washes, and coverings assiduously night and morning, and fortunately by such means tided over difficulties that hitherto have almost invariably "sealed the fate of a patient" under similar circumstances.

The constitutional disturbances that were present during this three months had their origin in very distinct surgical conditions. At the onset and lasting for a period of from three to four weeks, was inability to pass water. I regarded this as belonging to mixed causes—due, on the one hand, to the interruption of so large an extent of the circulation by the application of the ligature, and, on the other hand, to progressive gangrene, both circumstances operating at the same moment of time with combined force to induce sudden and profound nervous shock. The wound, too, exercised an influence, for although it was thoroughly antiseptic and closed at the third week—short of a few granulations at its outer extremity—it then suddenly became œdematous, whilst rapid swelling about the upper aneurismal sac, and extending below Poupart's ligament, indicated the diffusion of mischief over a wide space. For six or seven days I was in hesitation as to the propriety of an incision into some part of this—for I had little doubt but that I was encountering a suppuration of the sac, so near to which was placed the ligature—when, fortunately, the pus broke along the inner end of the wound underneath the healed integument, and found its way in a vast quantity to the granulations, yet keeping open its other end. Great relief followed this occurrence, which was unattended by any blood discoloration save that due to the disturbed granulations. But if this alleviated some of the patient's distress, more especially in regard to the mitigation of the morning perspiration and the loss of appetite, the onward progress of the gangrene speedly renewed their influences. It was very painful to witness the daily emaciation, the loathing for food that was evidently present, added to which there was intolerable pain in the dying limb, assuaged only at nightfall by the subcutaneous use of morphia.

At last came the succour of amputation ; and as

that proceeding was performed when all gangrene had absolutely ceased, his hopes and his strength began to revive at the moment, and were never arrested by any drawback to the date of his leaving for home, on the 20th of June—five months after the operation,—his stump having soundly healed, and the aneurismal sacs at Scarpa's point and in the popliteal space being reduced to simple well-defined indurations in the course of the artery.

And now to the story of the ligature. I had naturally felt very anxious that my patient, should, if possible, en counter no risk from an inadequate material being used to secure the vessel. and at the same time I could not pass by the importance, when arterial disease appeared so marked, of avoiding cutting through the coats by ulceration, and escaping suppuration. Certainly I should not have deemed it right to have suspended every hope of recovery on the hazards of the ordinary catgut, for althongh I had myself met with no disaster in the various instances in which I had secured large vessels in their continuity by such means, I remembered I had used it only in cases where I had still left me a retreat in case of failure. Here, in a desperate position, I was clearly about to play with a final stake. Under these circumstances I consulted Professor Lister. After one or two trials he sent me the ligature I used, anticipating that whilst it would prove sufficiently enduring to secure the effectual closing of the artery, it would be no less capable of complete removal by absorption.

With this, as I have already stated. I tied the vessel by the reef-not, cutting off both ends close. I never expected to see anything of it again. But it was otherwise. When the suppuration of the sac had ceased I still found the wound at the outer end keeping very slightly open, and on dressing it some eight weeks after the operation, to my great astonishment saw lying on its surface the unaltered nooso of the ligature.

On communicating with Professor Lister on the subject, and returning him, for safe keeping, this historical loop, he writes :—"The catgut you used had been prepared by a new method, which I have been labouring to perfect, and which I expect very soon to publish ; but your case shows that it is possible to have the catgut, as it were, too well prepared so as to remain unabsorbed and also rigid, and in consequence of the latter property liable to make its way out like wire or glass, with or without suppuration."

This incident over, the wound finally closed, so firmly indeed as to preclude any idea of the probability of hernia.—*The Lancet.*

PROFESSOR LISTER.—The Council of King's College London, in order to have the benefit of Mr. Lister's teaching, have created a second chair of clinical surgery, which has been offered to him and he has accepted. As Mr. Lister's antiseptic surgical practice requires that the patients so treated shall be kept separate from those who are not, the authorities of the hospital have placed two wards—one for male and one for female patients—at Mr. Lister's disposal. Is is reported that Mr. P. Heron Watson is likely to become a candidate for the chair of Clinical Surgery in the University of Edinburgh, vacated by Mr. Lister.—*Medical News and Library.*

CLINIC ON HEART DISEASE BY PROF. FLINT, SR.

MITRAL DISEASE, WITH DILATATION.

I have asked the house physician, Dr. Taylor, to select for me a couple of cases of cardiac disease with enlargment, and told him that I would prefer one with mitral lesion and the other with aortic, if possible. Here is the first patient, a man of about thirty years of age. I have never seen him before, and all that I know about him is that he has some trouble about the heart. Now, let us see if by putting certain questions we can form any conjecture as to the nature of the latter. And, first, as to its etiology. How long as it been since you had an attack of acute rheumatism? He replies that he has never had rheumatism at all. I supposed that he would probably have given a rheumatic history; for, as you are aware, the great majority of cases of organic disease of the heart arise from rheumatic endocarditis. Our next inquiry is in reference to the first symptom noticed, and the patient informs us that it was shortness of breath, nearly a year ago. It has continued with more or less severity up to the present time, and is sometimes so urgent that he is unable to lie down. In addition to the dyspnœa, we find that he has had a cough, with expectoration, and that he has had hæmoptysis five times since last January. (You will please remember that subacute bronchitis frequently occurs in connection with valvular disease of the heart.) Another symptom that has also been present is œdema of the feet. Now, do the features of the case which have just been mentioned point to mitral or to aortic disease? Let us take a vote on it. All those who think the former is indicated will please hold up their right hands. It is "carried by a large majority." Yes, all those symptoms point towards mitral lesions, and show a probable enlargement of the right side of the heart, due to this cause. Having thus attempted to form some idea of the nature of the case beforehand, I apply the stethoscope, and find that there is both a mitral direct and a mitral regurgitant murmur. Mitral obstruction is a lesion which would especially account for the hæmoptysis. On further ascultation, I find the aortic second sound very feeble, and that the pulmonary second sound is about four times as strong

as that. This feeble aortic second sound shows that the ventricle contracts on an insufficient quantity of blood. The area of percussion-dulness over the heart is three or four times as great as that in the healthy individual; and it is safe to say that the dilatation now exceeds the hypertrophy, though not to a great extent. You will notice the apex-beat at a considerably lower point than it should be.

This patient has improved considerably since his admission to the hospital. There is now no œdema at all, and no lividity of the lips, as I am told there was formerly. There is no indication at present for digitalis, as the heart is acting very well. The object of treatment here may be briefly stated to be to put and keep the patient in the best general condition that the circumstances of the case will admit of. He should therefore have the best alimentation and in the largest quantities that he can possibly digest. In my opinion, it is far better to put too much into the stomach than too little; though I am aware that such views would not meet with universal acceptance. In addition to good alimentation, all the hygienic surroundings should be the best possible, and the patient should have just as much out-door exercise as he is able to take with comfort. Of course, we cannot expect to remove the mitral insufficiency and obstruction; and I would like to impress upon you that in practice it is quite as important to avoid doing what there is no indication for, as to do that for which there really is an indication.

DISEASE OF THE AORTIC VALVES.

Here is another cardiac case, the nature of which I do not know; though, as the last was one of mitral, perhaps we might infer that this would be one of aortic disease. Still, it would not be safe to trust to such a supposition; and, accordingly, we will endeavour, as in the last case, to find out what we can from the history and symptoms, before resorting to a physical examination.

Curiously enough, this patient, who is a woman in middle life, also states that she has never had rheumatism. Four years ago, she says, she began to have trouble in her chest, and the first thing she noticed was an unusual beating of the heart. You will note the difference here from the other case, in which the shortness of breath was the first thing that attracted the patient's attention. This palpitation is increased whenever anything disturbs her, or when she takes much exercise. If the exercise is pretty active, she suffers both from palpitation and shortness of breath. She has some little cough and expectoration, but has never spit up any blood. There is some blueness of the lips, and some œdema. Well, let us take these various features of the case, and see what they point to. The palpitation is evidently the principal symptom, as she tells us that the cough is only of recent origin. Now, what is palpitation especially characteristic of? Aortic trouble, you say; and you are right. And now, having formed a conjecture as to the nature of the case from the history given, let us proceed to find out by exploration what is the exact character of the difficulty. First, you will notice that the apex is away off to the left, and considerably lower down than it ought to be. In listening here, I detect a slight mitral murmur, and it seems to be a direct one. Sometimes this occurs temporarily, where there is a regurgitant aortic murmur, as I find to be present in this case. In addition I am able to make out here the pre-diastolic murmur, which, as it does not seem to have any particular significance, I may perhaps be permitted to urge my claim to have been the first observer to discover. You will find it just after the first sound of the heart, and just before the second sound. There is, as you are aware, no very long interval between the two sounds; but it is long enough to note distinctly the murmur to which I have referred. There is no very great amount of aortic regurgitation in this case. The aortic second sound is not very feeble; but the pulmonary second sound I find to be decidedly loud. — *Medical Times.*

TREATMENT OF LEPROSY BY GURJON OIL.

The following Extract is from a Medico-topographical Report on the Andaman Islands by Surgeon-Major Hodder, M. D. Army Med. Department.—Whilst speaking of the diseases of convicts, I wish to mention two novel modes of treatment which, through the kindness of Dr. Dougall, Madras Medical Service, Senior Medical Officer, Port Blair and Nicobars, I have been able to see, and, though not connected with the European detachment, I think should not be omitted in a report of this kind. The first relates to the treatment of leprosy by gurjon oil—the oleo resin obtained from the *dipterocarpuslevis*, which grows abundantly all over these islands and in Burmah. When Dr. Dougall first visited the Leper Ward in March 1873, he found 24 patients, many in a wretched state with ulcers, portions of toes gone, anæsthesia, and all symptoms of leprosy clearly defined. He was much impressed with their wretched state, and, after thinking the matter over for a while, decided to use the gurjon oil—1 part to 10 of cocoa-nut oil, as an external application. This was begun on the 23rd May 1873 on all the lepers, their bodies being rubbed *all over* with the oil. In June, the proportions were altered to 1 to 5 respectively, and shortly after the gurjon oil was ordered internally also, in 6-drop doses, and gradually increased to 60 drops. In July, Dr. Dougall noticed that the lepers where

improving in appearance, and gaining flesh, and the sores were beginning to heal. He then photographed them for future comparison. The first notable improvements were the healing of ulcers and gradual diminution of the anæthesia. Not satisfied with the way the gurjon and cocoa-nut oils mixed, Dr. Dougall in trying various vehicles, hit on lime-water, and found that this and the gurjon oil, in the respective quantities of 3 and 1, and violently agitated, formed a substance like soft butter, and this he named "gurjon oil ointment"; it is smooth, and no pain follows its application to the healthy skin; at the same time, he made an emulsion of equal parts of the oil and lime-water, for internal use, in half-ounce doses, morning and evening. The following is now the plan of treatment adopted. The lepers turn out at daylight, go to a stream, thoroughly wash themselves, using powdered earth as a detergent; they then return to their ward, receive their dose of emulsion, and then rub their *whole body* with the ointment; this process should continue two hours, and they are supervised during this time; no limit is placed on the quantity of ointment. At 3 P. M., the dose is repeated, and the rubbing process again gone through for two hours Dr. Dougall attributes much good to the prolonged rubbing, not only on account of the physical exercise it entails, but the mental occupation it supplies. The emulsion acts as a laxative and diuretic. Twenty-four lepers have been treated, and in every case decided benefit has resulted; every ulcer has healed, and anæsthesia is markedly removed, and tubercles have softened and disappeared. Through the above treatment, men who for years have only dragged on a miserable existence, are now able and willing to work, and the healed sores show no tendency to reopen. No change whatever was made in their diet, which was and is bad.

The second mode of treatment referred to is that of ulcers by dry earth in a powdered state. Many of the convicts who work at the clearings are so saturated with and weakened by malaria, that the slightest scratch inflames and sloughs, leaving a large foul-smelling brown unhealthy-looking ulcer. Dr. Dougall has treated such cases, with the best result, by means of dry earth. The ulcer is washed, and then the powdered earth, to the depth of about an inch is placed directly on it and a little over the margins; moist sheets of paper are placed over this, and a bandage over all, and left for 24 hours; the earth is then washed off, by means of a stream of water, and fresh earth applied. Some smarting results, as the earth seems to act as a stimulant as well as a deodorant. Very soon the brown surface disappears, and all smell is at once removed, and healthy granulations spring up. As soon as this takes place the ulcer is dressed with carbolic acid lotion, and heals quickly. Dr. Dougall has treated very large numbers in this manner, and is entirely satisfied with it. I might mention that whilst serving in the West Indies in 1868, I treated several large ulcers in the groin, the result of syphilis in soldiers of a West India regiment, with dry earth, and considered that the ulcers rapidly cleansed under the treatment. I had no opportunity of carrying it out except in a few cases.

PROPHYLACTIC TREATMENT OF PLACENTA PRÆVIA.

BY T. G. THOMAS. M. D.

There is but one method at present at the disposal of the obstetrician by which the evils attendant upon the three last months of utero-gestation, and upon labor thus complicated, can be avoided. It is the induction of premature delivery after the period of viability of the child. By this procedure a rational, and it appears to me a perfectly warrantable, means of avoidance of a great danger is offered to us; one which presents in itself no dangers comparable with those of noninterference, and one which, while it removes the absolute hazards attendant upon delay, relieves that wearing anxiety which harasses patient, friends and physician.

Fortunately this condition is usually announced during the last months of utero-gestation by premonitory signs of reliable character, and thus we may empty the uterus before the vital forces of both mother and child are exhausted by hemorrhages, the results of repeated detachments of the placenta. My conviction is that, in every case of undoubted placenta prævia, in which the flow of blood threatens, by its amount or frequent recurrence, the loss of mother and child, premature delivery should be induced. What objection can be urged against it, other than that a child of less than nine months of intra-uterine life does not have as good a prospect of life as one which has arrived at full term? In the case which we are considering, even this is invalidated by the fact that an eight-months' child out of the uterus, and depending upon pulmonary respiration, has a decidedly brighter prospect for life than one in that cavity depending for aëration of its blood upon a crippled and bleeding placenta. For the mother, how incomparably greater the safety which attends an emptied and contracted uterus! By inducing delivery during the ninth month of pregnancy, we should be dealing with a woman who is not exhausted by repeated hemorrhages; we would be in attendance at the moment of cervical dilatation, and consequently the moment of danger; and we would be able by hydrostatic pressure to control hemorrhage in great degree, while at the same time the period of dilatation of the cervix, which constitutes the time of maximum danger, may be rapidly accomplished.

Under these circumstances, in the words of Angus McDonald, "nothing can be gained by delay, if we are satisfied that the bleeding is really serious, and if continued would lead to great risk to the mother's life and health."

With these considerations before me, and with a certain amount of experience to support them, I can not resist the conviction that, when premature delivery becomes the recognized and universal practice for placenta prævia, the statistics of the present day will be replaced by others of a far more satisfactory kind.

Of eleven cases in which he resorted to the above plan: we give the following as a typical one. Case I. Mrs W., aged twenty-six, primipara, in good health, was suddenly taken with hemorrhage three months before full term. She sent for me in great haste, but being occupied I was unable to go to her, and she was seen for me by my friend, Dr. Reynolds. He discovered that she had lost a few ounces of blood, but that the flow had ceased. Three days afterwards she was again affected in the same way, the flow ceasing spontaneously. About a week after this she was taken during the night with a flow, which was so profuse as to result in partial syncope when she endeavored to walk across the room. I saw her early the next morning; found her flowing slightly, and upon vaginal examination succeeded in touching the edge of the placenta through the os, which was dilated to the size of a ten-cent piece. Later in the day Drs. Metcalfe and Reynolds saw her, and agreed with me in the propriety of premature delivery. In accordance with this determination, at 7 P. M. I introduced into the cervix, with considerable difficulty and by the employment of some force, the smallest of Barnes's dilators. This was followed in twenty minutes by the next larger dilator, and in an hour by the largest. Dilatation was rapidly accomplished, but instead of removing the largest bag, I left it in the cervix until ten o'clock that night. Expulsive pains coming on at that time I removed it, when the head rapidly engaged, and before morning Mrs. W. was safely delivered of a living girl. The placenta followed rapidly, and both mother and child did well.—*Extract from Amer. Practitioner.*

New Remedy for Burns and Scalds.— Dr. G. F. Waters, of Boston, recently tested before the meeting of the Massachusetts Dental society a new remedy for burns and scalds, consisting of the application of bicarbonate of soda, the simple cooking soda used in all families. The doctor dipped a sponge into boiling hot water and squeezed it over his right wrist, the water flowing almost completely around the arm, and nearly encircling it with a severe scald two inches in width. Not content with this, he dipped the sponge a second time, and pressed it closely on the under side of his wrist for thirty seconds. He then applied bicarbonate of soda to the scalded surface, and laid over it a wet cloth, and the intense pain was banished as if by magic. On the next day after this severe test, the scald, with the exception of the part purposely made most severe, was practically healed, only a slight discoloration of the skin showing where the scalding water had flowed—this, too, without a second application of the soda. The flesh on the under side of the wrist had been cooked down to the sweat-glands, and the scald was one which ordinarily would have caused an open and painful wound of long duration. The only treatment of this, however, after the first application of the soda, was to keep the part moist with a wet cloth and no pain was experienced, and it was but a few days before this severe wound was seen to be rapidly healing.—*Proceedings Med. Society Kings Co., N. Y.*

Dr. Sayre's Apparatus for Extension in Pott's Disease.

The proper plan of applying the plaster of Paris jacket is to take loosely woven cloth, such as cross barred muslin, mosquito netting, or cheese-bandage cloth, and cut it into strips three or four inches in width, according to the size of the patient upon whom it is to be used, and then fill its meshes completely by drawing the cloth through and at the same time rubbing into them freshly ground plaster of Paris, such as has not been exposed to the air. The strips are then rolled up into tight rollers after the fashion of the ordinary roller bandage, and are ready for use at any time occasion may require. They should be kept in an air-tight tin vessel.

When you wish to apply a jacket, the patient is to be suspended by means of an apparatus, prepared for the purpose (see Fig. 1 and 2), consisting of curved iron bar with hooks at either end from which pass straps that are attached to pads that go through the axillæ and also under the occiput and chin, and are capable of being made shorter or longer according to the length of the patient's neck. The iron bar is suspended from the ceiling by means of a compound pulley through which gradual extension can be made until the patient is drawn up so that the feet swing clear from the floor.

Previous to the suspension, however, a thin flexible leaden strip should be laid upon the spinous processes for the entire length of the spinal column, and bent into all the sinuosities, so that it may take a perfect outline of the deformity. This strip is then laid upon paper and its outline marked with ink, and we have a perfect mathematical outline of the irregularities along the spinal column. After the patient has been suspended, the same leaden strip should again be applied along the spinous processes, as in the first instance, and another pattern made upon paper by the side of the first.

Now we have a means by which comparison can

be made, and we are able to determine exactly what changes have taken place in the curve. The shirt, which should be woven or knit without seams, and tightly fitting the body, is next pulled down and an opening made in front and rear through which a ribbon or piece of bandage is passed for the purpose of holding in place a handkerchief placed in the perineum, and at the same time making the shirt fit the hips exactly; for the tighter the shirt fits the less number of wrinkles there will be in it. The roller bandages, previously prepared, are now set on end in a vessel containing sufficient depth of water to cover them entirely, and, at first, bubbles of gas will escape through the water freely. When the bubbles cease to escape, the bandages are ready for

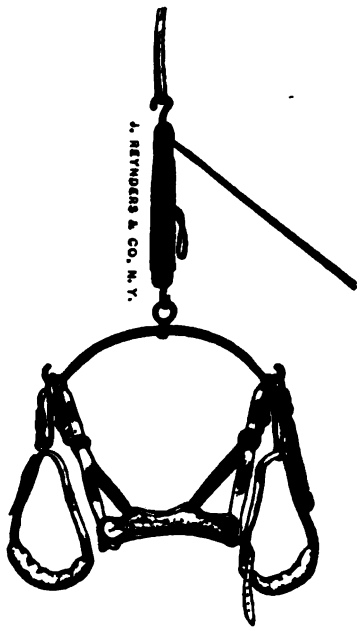


FIG. 1.

Suspension Apparatus with plain arch. Chin-neck and axillary bands are attached to same parts of the arch.

use. Then taking a roller in the hand, and squeezing it gently so as to remove all surplus water, commence just around the smallest part of the body, going to the crest of the ilium and a little below it, and lay it around the body smoothly, but do not draw upon it all; simply unroll the bandage with one hand while the other follows and brings it into smooth close contact with all the irregularities of the surface, over the ilium and dipping into the groin over the abdomen and dipping into the groin again, and so on, from below upwards in a spiral direction until the entire trunk has been inclosed from the pelvis to the axillæ. After one or two thicknesses of bandage have been laid around the body in the manner described, narrow strips of perforated tin are placed parallel with each other upon either side of the spine from two or three inches apart, and in numbers sufficient to surround the body, and another plaster roller carried around the body, covering them, in the manner in which the first bandage was applied.

The few strips strengthen the bandage, and obviate the necessity of increasing its weight by the application of a larger amount of plaster. If there are any very prominent spinous processes, which at the same time may have become inflamed in consequence of pressure produced by instruments previously worn, or from lying in bed, it is well to guard such places by means of little pads of cotton or cloth or little glove fingers filled with wool which is elastic, which are to be placed upon either side of them before applying the bandage.

Another suggestion, which I have found to be of practical value, is to take two or three thicknesses of roller bandage three or four inches long, and place them over the anterior superior spinous process of each ilium. These little pads are to be removed just before the plaster has completely set, consequently leave the bony part free from pressure after the soft parts have shrunken under the influence of the continued pressure produced by the plaster dressing. It is also well, just before the plaster has set completely, to place one hand in front of the ilium and the other over the buttocks, and squeeze the cast together so as to increase this space over the bony prominences. In a very short time the plaster becomes set sufficient so that the patient can be removed from the suspending apparatus and laid upon the face or back on an air-bed, where they are to remain until the hardening process is complete. A hair mattress answers a very good purpose, but the air-bed is preferable, especially if there is much projection of the spinous processes or the sternum.

CASE OF PARACENTESIS PERICARDII.

R. M'A., aged 23, by occupation a farmer, of sanguine temperament, vigorous constitution, and never having suffered from any previous illness, was seized, after a severe wetting followed by a chill, with wandering pains about the left side of his chest for a week previous to my first seeing him

On the 1st April, 1874, when called to visit him, he was complaining of difficulty of breathing, with sharp pain below the left nipple. He had profuse perspiration, of a disagreeable odour: his urine was loaded with urates. He had urgent thirst; decubitus by preference on back; slight inability to lie on left side; pulse and temperature nearly natural. Joints free from pain. Physical examination of the chest revealed distinct friction sound of a to-and-fro character over the præcordial region, and there was

dulness on percussion extending slightly beyond the natural area. He was ordered to have half-a-dozen leeches applied to the seat of pain, and fifteen grains of each of the bicarbonate and acetate of potassa, largely diluted, every two hours, and a calomel and opium pill every eight hours.

2nd April.—Pain and difficulty of breathing greatly relieved, dullness on percussion and friction sound somewhat less. To have cantharides blister, 4 × 4, applied to neighbourhood of heart.

3rd April.—Pain and difficulty of breathing gone; friction sound scarcely audible; dullness on percussion confined to natural area. From this time till the 28th April patient continued to improve steadily, and nothing abnormal could be heard over the region of the heart.

On the 29th April he sat up in bed for the first time since the commencement of his illness, but he no sooner did so than he was again seized with severe catching pain under his left breast. His pulse rose to 120, the urine was again loaded with urates, and he could not lie on the left side. The treatment which was found so effectual in the previous attack was again steadily followed. Despite the most assiduous use of these means, signs of daily increasing pericardial effusion became manifest. Friction sound, which was present for the first few days of this attack, was no longer audible, and the dullness gradually increased till it reached the second rib in the upward and the level of the diaphragm in the downward direction. Transversely it extended from the right margin of the sternum to about two inches beyond the left nipple outwards. The sounds of the heart were obscure and distant. Coinciding with the effusion into the pericardium, pneumonic consolidation of the left lung set in, involving fully more than the lower half of it—due, no doubt, to the pressure caused by the distension of the pericardium. A loud systolic murmur could now be heard over the base of the heart. The thrill and its accompanying undulatory motion, said to be common in cases of pericardial effusion, could not be clearly made out in this case, although any sudden movement of the patient gave rise to something like it. The pulse ranged from 120 to 130 per minute, small and irregular, and the respirations from 29 to 35 and shallow.

As the treatment failed to check the pericardial effusion, and as it became evident the patient must soon succumb to the daily increasing distension of the pericardium, I determined on performing the operation of paracentesis pericardii. A consultation with Professor Gairdner was obtained with this object in view. The operation was performed with the medium-sized needle of a Dieulafoy's rspirator, and the place selected for its introduction into the pericardium was the fifth intercostal space about two inches from the left margin of the sternum. Twenty ounces of a slightly blood-tinged serous fluid were drawn off. The operation was followed by the most marked relief to all the distresing symptoms. The pulse, which before was weak and irregular, became stronger and regular, and also less frequent. The breathing assumed its natural frequency, and the physical signs indicative of pericardial effusion disappeared. The lung, which was in a state of consolidation to very nearly its whole extent previously, gave forth its natural respiratory murmur immediately after the operation was completed. Temporary relief, however was all that was gained by the operation, for in a few days signs of effusion into the pericardial sac returned. Embarrassment to the heart's action and breathing gradually took place, and the operation had to be repeated on the 14th May. Again the most marked relief followed the drawing off of thirty ounces of serous fluid more deeply tinged with blood than on the previous occasion.

Complete freedom to the heart's action again continued for a few days, when the signs of returning oppression to the circulation and respiration slowly set in. On the 25th May the aspirator had again to be resorted to for relief, when about fifteen ounces of a still more bloody-looking serous fluid were drawn off. The relief obtained this time was as great as after the former operations, but less enduring in its results. The lung, which had recovered so completely its natural condition after the first operation, became again consolidated before the third operation was performed, and remained so, with the additional complication of effusion into the pleural cavity. The heart's action soon became feeble and irregular, without signs of effusion, in any great quantity, into the pericardium and after continuing for two days in a state of low muttering delirium the patient quietly died on the 28th of May.

Remarks.—The object of publishing this case—which I believe to be of rare occurrence, judging from the few cases recorded of late years—is to show the marked and unmistakeable relief that follows the operation of tapping the pericardium, where pericarditis, whether rheumatic or non-rheumatic, terminates in some effusion. No doubt the success attending this operation has hitherto been but small, but that can hardly be advanced as a sufficient reason for its nonperformance when required. The formation of an accurate diagnosis is essential to its success in the first instance, whether it may be successful ultimately or not. This is not so difficult as might at first sight appear, in cases likely to require interference of this kind, when we keep in remembrance that * "dulness of a pyramidal form occurring suddenly in a previously healthy person is symptomatic of pericardial effusion, and affords a tolerably accurate measure of its amount."

* See Fuller on Diseases of the Heart and Hear Vessels, p. 73.

* * We yet await the discovery of a certain remedy whereby the re-accumulation of effusion into the pericardium can be prevented. In our search for such means we must look to the earlier writers on this disease rather than to those who have written on the subject in more recent times. The only author who has ventured on actually carrying this intention into practice, so far as I can discover, is Dr. Aran.* In this interesting case, Aran tapped the pericardium twice, each time injecting into it an iodinous solution, composed the first time of tinct. of iodine to the same quantity of distilled water, with the addition of four grammes of the iodide of potassium. The success of the operation was complete, the patient recovering perfectly.—Dr. McLeod.—*Glasgow Med. Journal.*

RESTRICTION AND PREVENTION OF SCARLET FEVER.

[EXTRACTS FROM DOCUMENT ISSUED BY MICHIGAN STATE BOARD OF HEALTH.]

Whenever a child has sore throat and fever, and especially when this is accompanied by a rash on the body, the child should be immediately isolated as completely as possible from other members of the household, and from other persons, until a physician has seen it and determined whether it has scarlet fever. All persons known to be sick with this disease should be promptly and thoroughly isolated from the public.

The room into which one sick with this disease is placed should previously be cleared of all needless clothing, carpets, drapery, and other materials likely to harbour the poison of the disease, except such articles as are essential to the well being of the patient. The sick room may have no carpet, or only pieces which can afterwards be destroyed. Provision should be made for the introduction of a liberal supply of fresh air and the continual change of the air of the room without sensible currents or drafts.

Soiled bed and body linen should be placed in vessels of water containing chlorinated soda, chlorinated lime, or other disinfectant before removal from the sick room. For this purpose chlorinated soda is the neatest, and most convenient because it can be used with soap, but it is apt to lose its disinfecting properties by age. Chlorinated lime if used too freely may destroy articles of clothing with which it comes in contact, but if properly used it is the safest as a disinfectant. The discharges from the patient should all be received into vessels containing chlorinated lime (commonly called "chloride of lime,") sulphate of iron, or some other known disinfectant, and the same buried at once, and not by any means be thrown into a running stream, nor into a cesspool, or water-closet, except after having been thoroughly disinfected. All vessels should be kept scrupulously clean and disinfected. Perfect cleanliness of nurses and attendants should be enjoined and secured. As the hands of nurses of necessity become frequently contaminated by the poison of the disease, a good supply of towels and two basins—one containing solution of chlorinated soda (Labaracque's solution) chlorinated lime or other disinfecting solution, and another for plain soap and water, should be always at hand and freely used. Funerals of those dying from scarlet fever should be strictly private and the corpse not exposed to view. To avoid mistakes, notices of such deaths in the papers should state that the deceased died of scarlet fever.

All persons recovering from scarlet fever should be considered dangerous, and therefore should not attend school, church, or any other public assembly, or use any public conveyance, so long as any scaling or peeling of the skin, soreness of the eyes or air passages, or symptoms of dropsy remain. No person recovering from scarlet fever should thus endanger the public health nor appear in public until after having taken four times, at intervals of two days, a thorough bath. This cleansing, however, should be deferred until the physician in charge considers it prudent. After recovery from scarlet fever, no person should appear in public wearing the same clothing worn while sick with or recovering from this disease, except such clothing has been thoroughly disinfected by some such method as herein specified.

When a room and contents are to be disinfected, all articles therein should be spread out so as to expose the greatest amount of surface to the action of the disinfectant, and all openings to the room should be closed. To generate Chlorine, take peroxide of manganese, place in an earthen dish and add one pound of hydrochloric acid, to each four ounces of the peroxide of manganese. Care should be taken not to inhale the gas. After being certain that continuous evolution of chlorine has been secured, leave the room and close the door of exit. The bleaching properties of chlorine may destroy the color of colored goods exposed to it, but as a disinfectant it is one of the best. To generate Sulphurous Acid gas, put live coals on top of ashes in a metalic pan, and place on the coals sulphur in powder or fragments. A convenient way is to place the coals and sulphur on a heated stove plate or cover turned bottom upward in a pan half filled with ashes. To disinfect 100 cubic feet of air requires the thorough combustion of about one and one-half ounces of sulphur. Rooms should be kept closed and subjected to the action of the disinfecting gas for six or eight hours, and afterwards thoroughly aired by opening doors and windows.

* Bulletin de l'Academie de Medicine, xxxi., p. 142.

Heat sufficient to be disinfectant for this disease may be secured without destroying ordinary articles of clothing, say at 240° to 250° F.

HYDROTHORAX, CLINIC BY PROF. FLINT, SR.

The next patient is Mary Kessler, 27 years old; admitted, April 13th. Her family history is unimportant. Eight years ago she had typhoid fever, and aside from this, she has always been perfectly healthy. Six months ago she commenced to have a cough without expectoration, and severe attacks of cutting pains in both sides of the chest under the nipples. These pains were increased on coughing or movement, and at times were so severe that she was obliged to cry out. She had shortness of breath and dyspnœa. Physical examination revealed the following signs: On palpation, the precordial impulse was diffused over an unnatural area, and the apex beats were in the 6th intercostal space in the axillary line, 2½ inches to left of nipple. Auscultation revealed a loud murmur, having its greatest intensity at the apex, following the first sound, transmitted to the left, and heard behind. On the right side of the chest the vocal fremitus was absent, and on percussion there was found to be complete flatness below the third rib, the level of the flatness being altered on changing the position of the patient. Below this line the respiratory and voice sounds were lost, and above, the breathing was broncho-vesicular in character. From these signs we would certainly conclude that there was effusion in the right thoracic cavity, but to confirm this conclusion, the needle of a hypordemic syringe was introduced, and some serous fluid withdrawn. The abdomen was tender on pressure, and on palpation gave evidence of slight ascites. The liver and spleen were slightly enlarged. The pulse was accelerated. Urine acid, sp. gr. 1012, containing a small quantity of albumen and a few small hyaline and granular casts. She was placed on digitalis and from the date of admission has continued to improve.

We shall not take up this case in all its bearings to-day, but will leave the heart, and fix our attention for the present on the pleural cavity. The question arises, is this a case of hydrothorax or pleurisy with effusion. You perceive that there is a difference in the movements of the two sides of the chest, the right side scarcely moving at all. The line of flatness is not far from the fourth rib, so that we get distinct signs of considerable fluid still remaining. She has an affection of the heart and some disease of the kidneys, and we would naturally expect effusion to occur with lesions of these organs. The hands and feet are œdematous. We can settle the question between hydrothorax and pleurisy with effusion, by examining the other side of the chest; if the latter be free from fluid, we should say that the disease is pleurisy, but if we find fluid present on that side, we can consider it to be due to hydrothorax. It is scarcely necessary to say that by the term hydrothorax we mean a serous transudation or a purely dropsical effusion in the pleural cavities.

It is a general law of pleurisy that the disease is confined to one side of the chest, whereas in hydrothorax there is fluid on both sides, although usually a greater amount on one side than on the other. We examine now and find that there is some fluid present on the left side. The presence of serum on this side is not absolute proof of the case being one of hydrothorax, but it admits of this explanation, when taken in connection with the other facts of the case.—*Hospital Gazette.*

REST AS A THERAPEUTIC AGENT.

[The following is an extract from a lecture delivered by Dr. S. W. Mitchell, before the Medical and Chirurgical Society of Maryland, on the above subject.]

"But if it is easy to fatten and redden some people, we know, also, that it is hard to compass this in others. In our great cities there exist a host of influences for evil which result in all classes, and especially in women, in the gradual creation of patients who, having lost weight and become anæmic find it hard to regain that competency of capital in fat and blood without which the business of life is carried on at a dangerous cost. We search in vain in these cases for organic changes which may explain their condition. No function is well performed; but it is useless to correct digestion or to treat an ulcerated womb, or order exercise. The blood is lacking to aid in the little gains we win, and exercise is valuless or worse when it exhausts tissues which lack the means of being rebuilded.

"I need not dwell on points so obvious to educated physicians. For many years past I have had my thoughts directed to this subject, and like every one here, I have gone on month after month treating such cases with no better, and, I hope, no worse fortune than has fallen to others. A moment of happy thought, and much reflection since, led me to a method of treating, which has rewarded me over and over with success so brilliant that, as the plan of cure involves the use of those extreme measures of which I have been speaking, I may be pardoned for calling them to your attention.

"And perhaps also the path by which I reached my conclusions may not lack interest.

"Some years ago I saw a woman, who was like half a dozen any of you can now recall—a pallid feeble creature, who had menstruated irregularly

until two years before, and then stopped at the age of thirty. She was the type of a class. Every thing too wearied—to walk, to read, to drive, to sew. She was the woman with a back, and a shawl on her shoulders, and a sofa for a home, and hysterics for diversion. She had tired out the doctors, and exhausted drug-shops and travel, and outlived a nurse or two. The deformity-man had found a spinal curvature, and put on a brace; the gynæcologist had had his turn; the quacks had had their share; and she wore blue glasses to keep out the blessing of daylight. She was five feet four, and weighed ninety-four pounds, and had as much figure as a hat-rack, and had no more bosom than the average chicken of the boarding-house table. Nature had wisely prohibited this being from increasing her breed. How many of you have stood helpless before this women! Like you I had had my failures with such cases, and I was driven to reflect as to what new device I could try. Because everything tired her I put her at rest in bed. I made rest despotic, absolute. Then I fed her with milk at brief intervals. But in a few days my plan failed. Rest she took well enough, but attempts to feed resulted in sick stomach and diarrhœa, and new loathing for food. Then I said, I must find some way to give exercise without exertion. I had seen in Europe how much use was made of systematic massage or kneading of the muscles. I knew that under its use the feeble limbs of ataxics strengthen for a time, so that hopeful friends even dream of a cure; and I was aware that it improved the local blood-circulation in a remarkable way, and gave to feeble and flabby tissues increase of tone and firm plumpness. It seemed to me that it could take the place of exercise for persons at rest.

"I had also in electricity another means of causing muscles to contract without the action of will or the exhaustive use of nerve-force.

"For the first time then, I used on a woman at rest, thorough massage and the abrupt muscle-stirring of an inductive current.

"To my great pleasure, I found in a few days a return of appetite. But is kneading of muscles a mere fetish also? What scientific test have we of its activity? One, and a sure one, which I have lately found. In weakly people, despite the exposure to the air it involves, this process raises the general temperature ½° to 1½° Fahr. And, as I discovered this winter, to my surprise and pleasure, an induction current, either localized or merely allowed to pass to and fro, from neck to feet, does precisely the same. They effect tissue metamorphosis for the patient, in tissues little used in bed.

"I have employed every degree of rest; but in this woman's case, as usually, I permitted no exertion which could be avoided, and I carried it to such an extreme as to have the patient fed by hand, because it is tiresome while recumbent to use the arms, and because I have found that human beings, like turkeys, can be made to eat more when fed by another agent.

"To this treatment in a few days may be added raw soup and butter, and meat extracts, and iron in large doses.

"I fed this women with growing surprise at her power to digest as she reddened and fattened. And how did she fatten and redden? The nails became pink; the veins began to show in the limbs. At first, as always, the extremities became cold under massage, then they grew warm, and at last, when she was well, the massage no longer elevated her temperature. And this is the rule. And as to fat, it comes first on the face and neck, and then on the back and belly, and last on the limbs.

"By absolute rest, massage, and induction-currents, you acquire power to over-feed, and the tissues are enabled to reclothe themselves with fat, and, what is better, you can thus refill the blood-vessels. This woman came to me thin, sallow, ugly, and feeble. I sent her home fat and well, and vigorous and handsome, and menstruating steadily; and then nature relented and gave her a baby.

"This treatment has been to me a new light. I use it now without fear or hesitation, and think that I have learned at last how to recreate the blood and how to fatten. I have quoted one real case, my first. But this is no place nor occasion to relate cases, or to enter into details, as I shall elsewhere; but I may venture again to say a word as to two facts, even at the risk of being minute. During the treatment slight hemorrhages from the nose are not uncommon, but the return of regular menstruation is a better test of the rapid gain in blood. It nearly always becomes regular, and in three cases has returned during the first month of treatment, after absence, respectively, of three, five, and eight years.

"The gain of fat is sometimes at the rate of one-half pound a day. I have seen it reach three-fourths of a pound a day; but these rates are rare.

"The applications of this treatment are many. I have used it in numbers of cases, selecting at first such as had no hopeless organic disease. I have also used it to prepare feeble people for surgical operations, and within a year I have ventured to treat in this peculiar way people in the early stages of pulmonary phthisis. I have seen as to these some notable facts, and have learned that in some such cases rest and over-feeding are of true curative value; for this is one of the doctor's best lessons, that there may be one way or several to a cure. In the early stages of phthisis we have all come to think air and exercise and out-door life the one thing needful or hopeful, and I may be thought

insane to propose to treat such cases by rest and excessive feeding; but I promised at the outset to give you personal aud practical experiences, and this is one, and now and then I have seen it do good service.

SYPHILIS AND MARRIAGE.—Dr. Dryson says. "There is a question very frequently asked by a syphilitic patient, to which it requires much thought and an extended experience to reply. This question is—How long must a man who is affected with syphilis wait before he can justly enter into a marriage contract, and undertake the grave responsibility of becoming a father?

"There can be no doubt that a syphilitic man may be dangerous, if he marries, both to his wife and to his children, and also to the community through them.

"In the first place, it is clear that no man with any actual syphilitic symptom about him has a right to contract marriage with a healthy woman. The presence of any syphilitic symptom is an evident proof of the nature of the disease, with all its consequences and all its dangers. It is scarcely to be believed that any man would be found so daring as to enter the married state with the symptoms of syphilis about him. And yet such men exist, and cases of the kind are not so very rare.

"I have myself seen men marry with crusts in the hair, and with mucous tubercles in the throat and mouth. We hear of men marrying with syphilitic sarcocele and even, will it be believed—even on the faith of Dr. A. Fournier of Paris (*Le Mouvement Med.*, May 26, 1877)—with a hard chancre in full force.

"What a curious history of moral delinquency such facts reveal to the medical practitioner! The cases, however, vary greatly. In some persons we notice a species of ignorance verging on imbecility. Such expose their wives and infants to misery from pure stupidity. Again, there are infamous men who despise all human rights or duties which lie in their way, whenever they have a chance of securing a woman with money and a position in society for themselves.

"The majority, however, are those, who, from weakness of mind and infirmity of purpose, engage in a silly way in marriage without reflecting that they are the least of all fitted for such a contract. Such persons are terrified at the idea of a scandal or a breach between families, and are therefore unable to put off their wedding in face of the difficulties which such conduct might entail on them.

"It is well known now to all who have long paid attention to syphilitic disease, that the younger the disease of the husband is, the more numerous and grave are the dangers which he inflicts on all around him if he marry. When syphilis has been recently contracted, it is, as all know, especially contagious. During the first few months, or, at most, the two or three first years of the disease, we notice above all those desseminated manifestations of syphilis which affect the mucous parts of the skin. These accidents are liable to relapse and spread again with remarkable facility, and with a tenacity which is sometimes disheartening.

"At this epoch of the disease there are two foci where syphilitic accidents converge, namely, on the mouth and on the genital organs, the very localities which are most likely to spread contagion in marriage. When the disease gets older, these dangers no longer exist, or at any rate, in much less degree, for this reason, that in old syphilis the manifestations are far more scanty and infinitely less often repeated, and no longer consist in superficial, benign (and therefore dangerous, because unheeded) symptoms; but in deep ulceration, which are not liable to pass unseen, and consequently can not be inadvertently transmitted.

"We may, therefore conclude as follows: The contagion of the husband is the more to be feared in proportion as his syphilis is in its early stages.

"With respect then to the influence of the father's health on that of his children, we also find that the earlier the stage of the disease is, the more danger is there of the children suffering. This is clearly proved in the numerous facts that are published in medical literature, of successive abortions taking place in healthy women, by reason of the syphilitic influence of the father alone. Such abortions gradually leave off just in proportion as the syphilis becomes extinct, and become changed into true child-births at a given time. In time the patient who has done nothing but abort, is cured, as is well shown by numerous examples in the writings of syphilographers.

"For instance, we find that fathers who marry with a syphilis of some months of age, or of one, two, or three years of age, are far more likely to have syphilitic children, than fathers who marry when their disease is five, ten, or fifteen years old. It is very rare indeed to see any effect on posterity produced by a father whose syphilis is ten years old. Hence, when a man has lately contracted this disease, he ought to put off his marriage for a considerable time, the longer the better, within certain limits. If a syphilitic man waits for several years, before becoming a father, he acquires gradually a good chance that such children may be viable; and the longer he waits the better is the chance.

"We may then conclude that on every account, as well for the sake of the mother as for the child, the male parent should postpone his marriage for a considerable period. The main difficulty will be in fixing a precise date on such an indeterminate question as this. There are more things to be taken into consideratio.ʕ too, than merely the age of the syphilis in our male patient. The nature

and vigor of the attack has to be taken into account.

"With this idea clearly being kept in view, and with all abatements for mildness of the symptoms in any particular case, it yet would seem unwise on the practitioner to inform any male patient suffering from hard chancre or mucous tubercles, that he has any right to marry before some three or four years at least have passed over his head."—*The Doctor.*

DEATH FROM CHLOROFORM.—A death from chloroform occurred at Mercer's Hospital, London, June 25th. The patient was an intemperate man, a waiter and billiard marker, aged 27 years. The occasion for the administration of the anæsthetic was the firing of the knee joint for synovitis. Accordingly, on the morning of the 25th, after having given the man, who was rather nervous and excited, an ounce of undiluted whiskey, chloroform was administered by the experienced chloroformist to the hospital (the apothecary), by means of a Skinner's inhaler. Very soon the patient began to struggle, and within three minutes was under the influence of the anæsthetic. Almost simultaneously, and before any operative steps were taken, a peculiar change in the man's expression was noticed; the face became livid, and at the same moment it was reported that the pulse had become very weak, and then that it had stopped. The tongue was immediately drawn forward, the face and chest slapped with wet towels, a stimulating enema given, and nitrite of amyl held to the nostrils, etc. Artificial respiration by Sylvester's method was at once commenced, and vigorously carried on for an hour and fifty minutes; but although a few gasps and inarticulate sounds occurred, no sign of returning life appeared to reward the persevering efforts which were had recourse to for his restoration. An inquest was held on Wednesday; and the jury, having heard the medical evidence, returned a verdict that the deceased "died whilst under the influence of chloroform, in consequence of fatty disease of the heart." The *post-mortem* examination revealed an advanced stage of fatty deposition upon and degeneration of, an enlarged heart. There was also a layer of fat on the pericardium, and old pericardial adhesions. The walls of the heart were pale and flabby; that of the right ventricle was thinner than normal. The cavities were dilated and empty. The valves were perfectly healthy, but the aorta was atheromatous. The lungs were extremely congested, and the base of the right, hepatized and bound down by firm adhesions. The apices of both contained numerous nodules of caseous matter, which in several places had softened into small vomicæ. The liver, kidneys, and spleen were enlarged and congested. There were chronic gastritis and inflammation of the mucous membrane of the ileum. The coroner and jury and the legal adviser of the deceased widow expressed their opinion that the chloroform was properly administered, and that no blame was in any way attributable to any of the staff of the hospital.—*N. Y. Medical Record.*

INDICATIONS FOR THE USE OF THE CATHETER.—Very recently Sir Henry Thompson remarked that there are two indications which point to the time for commencing the habitual use of the catheter for emptying the bladder in cases of obstructive enlargement of the prostate. "Firstly, we must know the amount of residual urine habitually present, that is the quantity left in the bladder after the patient has passed all he can by his efforts; and, secondly, we must observe the degree of frequency, by day and by night, with which he passes water, but especially during the latter period." He says, "Let us suppose a case in which eight ounces always remain behind; that quantity suffices, in my opinion, to make it desirable that the patient should at once commence the daily use of the catheter." The second indication—the frequency of passing the urine by day and especially by night—is a symptom that demands attention and prompt resort to the catheter. The interruption of sleep and rest in elderly persons rapidly undermines the health.

There is no suffering so severe as that from retention of urine. The greatest living author on the genito-urinary organs, Sir Henry Thompson, says, "If, after twenty-four hours of agony, relief follows your dextrous use of the catheter, and the two or three pints which the patient was unable to void are withdrawn by your hand, he tells you that he is in heaven—a common expression with such patients; and he will never doubt for a moment that you were the author of his translation." I have repeatedly been more warmly and gratefully thanked by the patient and his family for relieving, by the use of these soft catheters, the retentions of urine than for any other professional service.

If you will consider the obstruction that exists in cases of enlarged prostate, I am sure you will never attempt to force a solid instrument by such an obstruction, but will in such cases rely on one of the soft catheters, which can, as I have before stated, worm its way by an enlarged prostate without the slightest injury to the tissues.

Professor Van Buren reports cases of prostatic enlargement which have been kept under control from twelve to twenty years by the systematic use of the catheter four or five times a day. As a rule, at the appearance of the first symptoms of the disease the patient should commence relieving the bladder four or five times in every twenty-four hours with one of these flexible instruments. If this injunction is observed life may be much prolonged

and the usual intense suffering made comparatively slight.

In cystitis, due to mechanical or chemical causes, warm water injections into the bladder are of unquestionable value. In inflammation of the bladder from obstructive prostatic enlargement warm injections will be found very efficacious in cleansing the viscus and soothing the inflamed tissue. If the patients are instructed to relieve the bladder with the catheter and inject warm water before retiring, they will often get a night of undisturbed sleep. But, besides, the dam formed by the prostatic growth causes retention of the urine, and hence decomposition of it with resulting cystic inflammation and the probable formation of a calculus. Warm water injections are necessary to cleanse the bladder, thereby preventing such formation; the soft catheters, together with a fountain syringe, are all that are required for the injections.—*American Practitioner.*

THE SURGIGAL TREATMENT OF EMPYEMA.—There are few cases which cause more anxiety to physicians than patients suffering from empyema, and we fear that uncertainty as to the best mode of treatment considerably aggravates this anxiety. Time is often wasted while half measures are being tried and found to fail; and sometimes it is only as a *dernier ressort*, when the patient's strength is exhausted and the case is desperate, that the true curative treatment is adopted. When the existence of pus within the pleural cavity has been established, there can be no doubt of the necessity for its evacuation. The question remains, how can this best be accomplished? Aspiration is the easiest method, and in children is frequently very successful; for any pus that remains after the operation is not unfrequently absorbed, and masses of lymph become organized. But in adults we do not meet with these favourable results; the hopes excited by the immediate relief following the aspiration are only too commonly dissipated by the evident signs of resecretion of pus. The fact is that the aspirator never completely empties a chest, and the fluid left behind is neither absorbed nor organized, but causes further suppuration. The other plan of making a free opening into the chest low down completely evacuates the pus, and allows of the gradual obliteration of the pleural cavity by the expanding lung, collapsing walls, and displacement of adjacent viscera; and it offers the only chance of cure in the great majority of cases of empyema in the adult. But there is a dread of this operation in the minds of many, owing to the evil results not unfrequently attending it: prolonged suppuration, destroying life by hectic, albuminoid disease, or acute tuberculosis; or decomposition of pus, with consequent blood-poisoning. Here it is that we think the antiseptic treatment can be employed with the happiest results; for it has been in cases of large abscesses that its most decided triumphs have been won. Where only pure non-irritating air is admitted to the pleural cavity the suppuration at once or soon ceases, and the patient escapes the danger of blood-poisoning. A drainage-tube should be employed, and care should be taken that it be passed just into the pleura; but it is unnecessary that any of the tube should be free in the cavity. Several cases are on record where these tubes have slipped into the pleura, and have given rise to trouble in extraction. This accident can be quite prevented by adopting the simple expedient of transfixing the outer end of the tube with a hare-lip pin, which crosses the wound and effectually prevents the tube passing in; and if the ends of the pin be secured to the chest by strapping, it equally prevents the tube being forced out of the opening. The tube should not be withdrawn until all secretion from the pleura has ceased.—*Lancet*, May 5, 1877. (*Monthly abstract of Med. Science.*)

PROLAPSUS RECTI.—This is a rare condition among children. It is of varying grades, as of part of the mucous membrane, or the whole of the rectum up to the sigmoid flexure. The latter is usually after the former has been allowed to pass unnoticed for a long time. In most cases, however, we find only a partial prolapse occurring after constipation. Catarrh of the large intestine may be a cause of prolapse, by the frequent stools and the tenesmus occurring coincidently with the wasting of the muscular part of the intestine. In rachitic children with such a catarrh, it not infrequently occurs, disappears for awhile, and reappears with the exacerbation of the catarrh. Such cases are best treated by treating the intestinal catarrh, and by irrigation of the intestine with water, beginning with a temperature of 24° to 22° (C.) and descending to that of fresh spring water.

In chronic cases astringent irrigations with solutions of alum and tannin should be used.

Such are also benefited by local treatment with cauterants. The prolapsed bowel may be lightly touched with nitrate of silver in substance, making a circle round it and radiating lines along the axis of the intestine; after this it should be replaced and confined with a suitable bandage. This should be renewed every three days for three or four weeks. If such proceedings do not effect a cure, one should use the hot iron, especially when the prolapse has lasted long and the sphincter ani is paralyzed. The irons used should be small and applied at the line where the mucous membrane covers the common sphincter. Strychnia and nux vomica by hypodermic injection or suppository he does not think of much value.

The replacement of a prolapsed rectum requires care. If a child is alarmed and screams and strains, it is best to anæsthetize him first. One must not maltreat the intestine with futile manipulations.

When the intestine is replaced it should be secured with a retainer of some sort. Dr. Monti uses, and thinks better than any of the more complicated appliances, a series of strips of adhesive plaster, which cross over the mons veneris and the anus, constituting a sort of artificial sphincter. Through the part opposite the anus he cuts a hole, through which the stools pass quite well, and yet the application prevents the protrusion of the rectum.—*Phil. Medical Times*, Aug. 4, 1877.

EFFECTS OF MEDICINES UPON THE FŒTUS.—In a paper by John L. Cleaveland, M.D., published in *The Clinic*, the following conclusions are advanced:

Certain remedies, *e. g.*, potassium iodide, salicylic acid, and chloroform, may pass from the maternal into the fœtal circulation.

The acute exanthemata, scarlatina, measles, small-pox, and perhaps vaccination, can be transmitted by the mother to the fœtus. Whether syphilis passes from the mother to the fœtus, or *vice versa* remains yet undecided. The effect of maternal, mental, and emotional influences upon the vitality and development of the fœtus is yet undetermined.

As to the therapeutic effects of medicines upon the fœtus almost nothing is known. There is only one class of remedies that is administered with the belief of hope that they will have any effect upon the fœtus, namely, syphilis specifics, and the efficacy of these is stoutly denied by some.

Chloroform is known certainly to enter the fœtal circulation, but it is not known to exercise any pernicious effects. Zweifel claims that jaundice may be caused. This, however, is not proved.

It has not been demonstrated that morphia passes into the fœtal circulation, but clinical experience appears to prove that in the hands of most practitioners, and in the vast majority of cases, opiates may be used with safety to the fœtus.

It appears, however, on the other hand, from the testimony of some observers, that the hypodermic use of morphia to its full physiological effect produces in the fœtus dangerous phenomena, cyanosis, impaired respiration, irregular pulse, contracted pupils, a disposition to sleep, and sometimes convulsions. It is of the utmost practical importance to us all that this latter point should be determined.—*New Remedies.*

ETHER AS AN ANÆSTHETIC.—The *Doctor* has the following excellent observations on this subject:—"It has always seemed to us," it says, "the height of folly to declare there could be no danger in any anæsthetic. The lesson taught by the late death from nitrous oxide has, it is to be hoped, been well learned, and we shall in future hear less of the absolute safety of any agent capable of depriving a person of all sensation. Some cases in which ether has been followed by alarming symptoms have lately been recorded. They have been termed syncope, but the word is not appropriate, as the heart continued to beat after respiration ceased. This is what should have been anticipated. When death is produced by ether the animal's heart continues to beat long after the arrest of respiration. The pulse is quickened by ether and maintains its force through a long state of anæsthesia. In these facts lies the safety of ether. But it should never be forgotten that there is danger at a certain stage, and the danger is from the side of the respiration, which at length ceases. Stertorous breathing proceeds from paresis of the muscles of the palate, and should lead to the ether being suspended. So respiration growing more and more shallow and less frequent is a warning and should not be overlooked. It is very rare that the heart fails—perhaps never. Pallor is rare too, and should excite attention if it occur. But we repeat, the danger of ether is from the side of respiration, that of chloroform from the heart, and this fact goes far to explain their relative safety. In chloroform narcosis the danger is much more sudden. Ether gives warning."—*Hospital Gazette.*

DYSENTERY TREATED SUCCESSFULLY BY LARGE DOSES OF IPECACUANHA—GIVEN BY THE NON-EMETIC PLAN. Forester. (*The Boston Med. and Surg. Jour.* Feb. 1877.) The following cases of dysentery treated by ipecac are of peculiar interest, says the author, because of the prevalent notion that large doses of the drug cannot be given beneficially to dysenteric patients without being followed by emesis. Case one, was treated by twenty-five grains of pulverized ipecac. every six hours, suspended in syrup of orange peel, and patient instructed to remain in the horizontal position, and to abstain from food and liquids during the treatment.

The ipecac. if rejected, to be repeated every twenty minutes until retained. The other cases reported were treated as the first, and the result obtained in each was speedy convalesence, followed by recovery.—*Chicago Medical Journal.*

LUXATION AT THE HIP-JOINT—EASY METHOD OF REDUCTION.—Place the patient on his back upon the floor; flex the femur upon the abdomen until it is brought at right angles with the pelvis; then, standing astride of the patient, clasp the hands under the legs close up to the thighs and suspend the body; when the body has been raised free from the floor, the sound limb can be so balanced against the leg of the surgeon that the entire weight of the patients body can be utilized as an extending force upon the dislocated limb, and, assisted perhaps by a trifling rotation, will draw the acetabulum over the head of the bone. In this manner the reduction was effected without the use of any force at

all, and it was believed that the principle was applicable to all forms of dislocation at the hip-joint. The theory was that the so-called Y ligament was the obstruction to reduction, and that, when it was most fully relaxed, as it could be by flexing the thigh at a right angle with the pelvis, the weight of the body was sufficient to overcome the obstruction and bring the bones into their proper relation. An advantage which the method possessed over all others was that it made the patient *particeps criminis*, and as a matter of necessity, he became one of the defendants in the suit, in case any one was subsequently disposed to sue for damages.

IRRIGATION IN CHRONIC CYSTITIS.—Dr. Jackson, in Boston Medical and Surgical Journal, reports two cases of chronic cystitis successfully treated by constant irrigation. The means used were a vessel containing water, a double catheter, and india-rubber tubing sufficient to convey the water to and from the bladder. The flow was regulated by a stop-cock attached to the reservoir. The position of the vessel should be such as not to cause pain by excessive pressure, but it is necessary that the bladder should be fully distended at times, in order that the whole surface may be thoroughly cleansed. About a barrel of water is needed in twenty-four hours. Of the first case, he says that the usual method of intermittent irrigation was adopted, and continued about two months, without benefiting the patient, at the expiration of which time constant irrigation day and night by means of water about the temperature of the body was substituted. A constant flow of water into the bladder was kept up for three days, when the catheter was withdrawn and the urine examined, which, on previous examinations, was alkaline, but now, for the first time, was acid. Irrigation at intervals, varying from two to three days, was kept up for about one month, at the end of which time the case was discharged cured. Case two was not unlike the first, only in the duration of time; about one month of treatment, by constant irrigation, at intervals varying as about in case one, was sufficient to cure the patient.—*Louisvill Med. News.*

TREATMENT OF GLANDULAR SWELLINGS AND ABSCESSES — (*Gaz. Med. de Paris* Dec. 2, 1876. *Med. Record*, Feb. 3, 1877). M. Quinart, of the Ghent Hospital, not only advises, like Nelaton, to attack simple engorgement of the glandular tissue at the outset with a series of blisters, but he employs the same treatment when pus has already formed. In this way resolution of suppurating glands can be obtained, which already contain several ounces of pus. When perforation of the skin is threatened, he punctures the sac at the most dependent part of the tumor, where the instrument must traverse a large extent of healthy cellular tissue. When the sac is emptied it is covered, whatever its extent, by a blister which overlaps it on all sides by one or one and a half inches. The following day, the blister is dressed with mercurial ointment; as soon as the skin begins to cicatrize, a second blister is applied, and so on. Among other cases, M. Quinart has cured an abscess that extended from the angle of the jaw to the clavicle, and which contained over ten and a half ounces of pus. The tumor was punctured just above the clavicle, and then entirely covered by a large blister. The second day, the little wound was reopened by means of a stylet, and a quantity of serous pus escaped. The third day, the greater part of the sac was closed, the fluid that accumulated in the most dependent part was reabsorbed, and no mark of this immense abscess now remains, except a small cicatrix above the clavicle.—*Detroit Med. Journal.*

PAPER SPLINTS.—Dr. M. R. Speare, of Rochester, N. Y., sends us a sample of his "paper splints." He writes:—I employ strong manilla-paper and book-binder's starch, which consists of flour and water boiled to the consistency of jelly. I first prepare my paper by cutting it into strips long enough to encircle the limb at its greatest circumference, and varying from half an inch to an inch and a quarter in width. Having an assistant with the starch and a brush ready, I apply a flannel roller as far as I wish the splint to extend; then smear this with the starch, apply the strips of paper—after starching—the same as a many-tailed bandage, brush this over with starch again, and apply another layer as before, until I get the required thickness, which is usually six or seven layers, according to the firmness of the paper used. The whole process will occupy about fifteen minutes.

When this is dry, which will take two or three hours, by the aid of hot bricks or sand bags on each side of the splint, it is very light and comfortable, fiting as nicely as a stocking, and is as firm as the same thickness of wood.—*Medical & Surgical Reporter.*

NITRATE OF PILOCARPINE.—Permit me to call the attention of your readers to the very convenient means now accessible for producing the inimitable diaphoretic and sialagogue effects of jaborandi. I refer to the nitrate of its alkaloid, pilocarpine. This may be administered subcutaneously without trouble, and produces within five minutes a distinct moisture of the skin, and in a few minutes more profuse sweating and flow of saliva, lasting for some hours.

In a case of Bright's disease (parenchymatous nephritis of an extreme degree), where the hot-air bath failed to procure diaphoresis, and where jaborandi in infusion was vomited, the subcutaneous injection of a little more than one fourth of a grain of nitrate of pilocarpine produced abun-

dant sweating and copious flow of saliva. The injection was several times repeated, as much, however, for the great relief afforded by its sialagogue action to the distressing dryness of the mouth as for the mitigation of the general symptoms, although the patient at first expressed himself as feeling much more comfortable after its action.

It has been used with similar results in two other cases, once in each. The therapeutic value of this drug cannot be considered at present as well determined; but such a convenient method of administration ought soon to furnish sufficient data for this purpose.

A solution of nitrate of pilocarpine grs. iiss or 0.16 gramme, aq. destill. ʒi. or 4 grammes, of which six minims or c.c. 0.4 may be injected, is of convenient strength.—*Dr. Edes, Boston Med. Jour.*

DIALYZED IRON.—If all that is claimed for this preparation be true, it is by far the most valuable form in which iron can be administered in many cases. There is high authority in support of its value. Becquerel, the celebrated French scientist, gives it unqualified praise, and it has been used in France for some time, with satisfactory results. It has been more recently introduced into American practice, and appears to be growing rapidly into favor in Philadelphia and elsewhere. Its mode of preparation is well known to chemists, and there is no secresy in connection with it. It is a concentrated solution of peroxide of iron, without oder, and without the styptic taste of ferruginous preparations in general. It may be given in the same doses as the ordinary perchloride tincture. As a chemical antidote to arsenic, it is claimed to be fully equal to the hydrated sesqui-oxide, and it has the advantage of being always ready for immediate use. Becquerel says of it, that it produces no gastric disturbance of any kind, and no constipation, and that it never discolors the teeth. Not yet having had an opportunity of giving it a sufficient trial, we cannot speak from experience, but the testimony in favor of it is too strong to be disputed. —*Pacific Med. Journal.*

THE *Medical Press and Circular* says: London, the greatest city the world ever saw, covers, within a fifteen-mile radius of Charing Cross, nearly 700 square miles. It numbers more than 4,000,000 inhabitants. It comprises 100,000 foreigners from every quarter of the globe. It contains more Roman Catholics than Rome itself; more Jews than the whole of Palestine; more Irish than Dublin; more Scotchmen than Edinburgh; more Welshmen than Cardiff. It has a birth in it every five minutes, and a death in it every eight minutes; has seven accidents every day in its 7000 miles of streets; has 123 persons every day, and 45,000 annually, added to its population; has 117,000 habitual criminals on its police register; has 23,000 prostitutes; has as many public-houses as would, if placed side by side, stretch from Charing Cross to Portsmouth; has 38,000 drunkards annually brought before its magistrates; has as many paupers as would more than fill every house in Brighton; has 60 miles of open shops every Sunday; and has an influence on the world represented by the yearly delivery in its postal districts of 238,000,000 letters.

SIMPLE METHOD OF TESTING THE PURITY OF CHLOROFORM.—Dr. Lueke, of Strasburgh, gives the following simple method of testing the purity of chloroform: Immerse a small piece of thin white blotting-paper into the chloroform, and then let it dry in the air. As soon as all the chloroform has evaporated, the paper will not present the least smell if the chloroform is pure. If there is any acid smell perceptible, it indicates the presence of butyric acid in the chloroform, and as a rule has the strong characteristic odor of that substance.—*New Remedies.*

TREATMENT OF FISSURES OF THE NIPPLES DURING LACTATION. Buttler. (*The Ohio Med. Record*, May, 1877.) When fissures of the nipples are not due to some constitutional cause, tinct. of benzoin freely applied to the parts will, in about five to ten days, effect a cure. Only the first application is painful. Tinct. of benzoin forms a covering on the surface of the nipple, and so protects it from the child. Lactation is never interrupted by the above process of treatment.—*Ibid.*

PROF. GROSS says:—"Experience has shown, that iodide of potassium is capable of performing for tertiary syphilis what quinine does for intermittent fever, or arsenic for neuralgia. It is *the remedy par excellence* in *tertiary syphilis*—a modern remedy of stupendous consequence to the human race; a remedy *without which* it would be impossible to treat disease with any prospect of success in almost *any case, however simple.*"

COLD BATHS IN INFANTILE DIARRHŒA.—In our issue of the 13th ultimo, we remarked that Dr. Horatio Wood, of Philadelphia, had drawn particular attention to the effect of heat and of the rays of the sun in causing cholera infantum, diarrhœa, enteritis, etc., and to the remarkable efficacy of enforced cold bathing in these cases.

Professor Nathan R. Smith, the distinguished surgeon and medical practitioner of Baltimore, died at his residence in that city, in the 81st year of his age.

THE death, at Paris, of Dr. Cazenave the illustrious dermatologist, is announced.

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science

Issued Promptly on the First of each Month.

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.*

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; J. M. BALDWIN, 805 Broadway, New York, and BALLIERE, TINDALL & COX, 20 King William street, Strand, London, England.

TORONTO, SEP. 1, 1877.

DEFECTS OF HOUSE DRAINAGE AND THEIR REMEDIES.

An admirable paper on this subject will be found in the annual report of the State Board of Health for Massachusetts, January 1876, written by E. S. Philbrick, C.E. He points out the necessity for the removal of sewage with all possible speed. Every device by which any part of it is hoarded or retarded in or about the premises is to be carefully avoided. A frequent mistake is made by laying large sized pipes for drains, arising from the notion that small pipes are more likely to become choked. The fact is, that all increase of size above the requirements of capacity is an actual injury, by diminishing the scouring power of the current; so that if laid with a fall of two feet or more in a hundred, a four inch pipe is better than a larger one for a house drain, because with the limited flow the smaller one would scour better than the larger one. If rain water is admitted from the roof gutters, either for convenience or flushing, a larger size is perhaps needed, but six inches is ample even then, for any ordinary house roof. If the fall is less than two feet per hundred, flushing may be needed. Dr. Latham says that in order to be self-cleansing, the house drain should convey its contents at the rate of three feet per second. To attain this velocity, a four-inch drain must have a fall of about one foot in a hundred, and a six-inch drain about one in a hundred and forty. In all houses which drain into sewers, the trap should be placed outside of the house walls on the main house drain, after it has collected all the branches which are tributary to it. Dr. Parkes in his "Treatise on Practical Hygiene," says:—"It is hardly possible to insist too much on the importance of this rule of disconnection between the house pipes and the outside drains." The Medical Officer of the Privy Council, London, says, "This condition ought to be insisted on, that every private drain be properly trapped and ventilated in relation to the common sewers." The gas which arises in foul drains is of a singularly light character, and has a tendency to ascend or draw towards any heated part of a house. Hence it often occurs that houses in towns situated on the highest grounds are more unhealthy than those in valleys, the foul air rises to them through the drains. As during the greater part of the year the internal temperature of an inhabited dwelling, and especially of some parts of it, is much higher than the surrounding temperature, it is obvious that the gas naturally ascends to the living rooms, especially if during the winter and autumn they are warm and comfortable. The water-closets are also generally on the bed-room floor, and it is more injurious to health to sleep in foul air, than to be in it during the day time. In planning house drains, they should be got outside the walls of the house as directly as possible. In public institutions or other large buildings, where a large number of receptacles of sewage is provided, the main drain for the collection of the whole should be outside the walls, wherever practicable, for the reason that fewer joints of pipe, and fewer chances of leakage from imperfect work, would thus occur within the walls. The pipes should not be buried under the cellar or basement floor, but should be readily accessible for inspection. They can generally be placed along some wall or partition, or hung from the ceiling where their joints can all be readily seen, to be recalked and painted whenever necessary Dr. Parkes says it should be a strict rule, that no drain pipe of any kind should pass under a house. If there must be a pipe passing from front to back, or the reverse, it is much better to take it above the basement floor than underneath, and to have it exposed throughout its course. The water closet is used by thousands who know little of its mechanism, and who consider it as an automatic arrangement, needing little or no attention. But, as it is no more perfect in its way than all other works of human hands, it has many faults and weak points, particularly in the form of the pan closet, now so generally used. It therefore behooves the architect who plans a house for the rich man, the

mechanic who plans his own, or who builds to sell again, and lastly the householder and head of the family himself, to know something of the general principles of its construction, and to avail himself of such knowledge in planning, building and taking care of a house. There seems to be a deplorable lack in this respect, for instead of water-closets and drains being placed so as to insure the getting rid of the refuse with safety, we often find poisonous gases emitted from them, and conducted all over the house, by an ingenious system of pipes, floor spaces and partition spaces in our plastered buildings.

It is to be regretted that among the hundreds of patented inventions, recently brought before the public, one of the most defective and dangerous of them all should have got into such general use, viz., the ordinary pan closet. Latham speaks of them in his "Sanitary Engineering" as "cumbrous appliances which cannot be introduced into a house without creating a nuisance." If the water closet can be located near a chimney which is sure to be in constant use, as the kitchen chimney, the evil can be abated by passing a zinc tube of some three inches in diameter, from the space under the water closet into the chimney flue. Where no warm chimney can be had near enough to be used, the draught tube can be run directly through the roof, with some ventilating attachment at its top to encourage the upward draught of air. It is always advisable to provide at least a part of a window directly over every water closet. The pan and hopper closets which are often found tucked into corners, under stairways, and in other dark places, without special ventilation, are sure to become nuisances, and poison all their surroundings.

PREVENTION OF WORMS IN CHILDREN.

Whatever will assist the members of our profession engaged in constant and extensive practice, must be worthy of notice at our hands. In view of the quantities of anthelmintic remedies sold by chemists for popular use in families, and the quantity of medicine prescribed by physicians in addition thereto, any knowledge of a hygienic or prophylactic nature should be widely disseminated.

It is often well to recall the observation of men of a past age, on a subject. About a century ago the eminent Dr. Rush of Philadelphia, made a series of experiments upon common earth worms, as most nearly allied to those which infest the bowels of children, for the purpose of discovering what agent would most speedily destroy their life, and which could be used as a vermifuge or worm medicine. From these experiments he discovered that fresh ripe fruit is the best preventive against worms, and the most speedy and effectual poison for them. Any physician who may choose to put this theory to the test, will find it true in practice.

Dr. Rush's experiments proved that worms will live longer in some solutions known as poisonous, than in the juice of some of the most harmless articles of food: thus in a watery solution of opium they lived eleven minutes; in an infusion of pink root, thirty-three minutes; while in the juice of red-cherries they died in six minutes; in the juice of black-cherries in five minutes; in the juice of red-currants, in three minutes; that of goose-berries in four minutes; whortle-berries, in seven minutes; and raspberries in five minutes.

It may be added in a word that any vegetable acid is destructive to the various forms of enteric parasitic life and as such the various acid fruits may be safely and judiciously recommended. A child's digestion should never be allowed to become impaired by over-eating or bad food, as this favours the generation of worms.

The preparations of Iron are excellent prophylactics, not only from their tonic influence but also because their effects upon the intestinal secretions are such as to render them unfavourable to the propagation of the parasite. The above remarks apply only to the *Ascaris Vermicularis* or small thread worm, the *tricocephalus dispar* or long thread worm and the *Ascaris lumbricoidis*, or round worm. The tape worms—*tenia Solium* and *tenia lata* being introduced into the alimentary canal with the food are not preventable by such means. The only prophylaxis is in the avoidance of *measly pork* or *beef*, and *underdone* sausages, which are the means of carrying the eggs into the system.

INEBRIATES.—The American Association for the Cure of Inebriates will hold its eight annual meeting at Chicago, Ill., Sept. 12th, 1877. Important papers and business will be presented.

LADY DOCTORS.

By a vote of the Senate of the London University, England, the degree of M.D., is now open to women. This degree is one of the highest in the world, and now that this University has discarded the old obstructive policy, it is probable that other Universities will follow the example. Whether or not women are fitted for the duties of the medical profession, and whether or not ladies would prefer them to men as attendants, are questions that may safely be left to work out themselves. For if mere arbitrary restrictions against women entering upon the duties of the learned professions have kept them back, then the world will be the gainer by the new energies set free; but if it prove that woman is not adapted to the strain upon the energies of body and mind requisite for the proper fulfilment of professional duties, then things will ultimately find their own level, and the present male guardians of professional privileges need have no fear of their new rivals.

ANOTHER VOLUME.—With the present number of the CANADA LANCET we commence a new volume. We have now entered upon the 10th volume, and the success we have had, is very gratifying, for notwithstanding the hard times through which we have passed, and the dilatory and spasmodic manner in which the subscriptions have come in, we have been able to keep even with our creditors, but we have not been able to undertake any further addition to the size, or improvements in the style of the Journal. Our advertising business has been a great help to us. Many times we would have been under the necessity of asking for an extension of time from our printers and others, but for the timely remittance from some of our advertisers. An experienced journalist was once asked what he thought of the possible success of a certain paper. He said. "shew me the advertisements and I will tell you what kind of a paper it is, and what its success is likely to be." This may not be exceptionably true of all papers, but it is so in the main. Papers and periodicals that are patronized by advertisers must have a good circulation, and those which have obtained a large circulation must have met with the encouragement and approval of their readers. We are happy to say that the LANCET has had the warm and liberal support of almost the entire profession in Canada from the outset of its career, and it not only continues to hold its position as the leading medical journal in Canada, but is constantly growing in favor as is evidenced by the constant additions to our subscription list of the names of medical men in the Dominion, and also from many parts of the United States. "There is nothing so successful as success," and this is true in medical journalism as in everything else.

During the past four or five months it will have been observed that our advertising space has been very much increased. We were obliged to insert separate sheets in order to prevent too much encroachment upon the reading matter. Thirty-two pages double-column, of closely set reading matter is published every month, and this we will continue to do, notwithstanding the number of pages of advertising matter we may have orders for. The latter will be increased according to the demands so as not to necessitate any curtailment of the stated amount of reading matter. We also take this opportunity of thanking our friends for the very generous and liberal support they have given us during the past, and hope to merit a continuance of it in the future. We would also most respectfully remind those who have not sent in their subscription for the past year, of the omission.

MONTREAL DEATH-RATE.—The following is an extract from the report by Dr. Larocque, medical health officer of Montreal, for the month of July—

There were 608 deaths during the past month, being an increase of 58 over that of the month of June last, and 60 less than the corresponding month of last year. The mortality of the past month represents an annual death-rate of 45.30 per 1,000, the population being estimated at 134,200. The number of deaths by zymotic diseases was 300, being 16 more than in the month of June, and 36 less than in the month of July, 1876. There were 40 deaths from small-pox, 27 less than in the month of June last, a very gratifying decrease. The number of deaths caused by diarrhœa, dysentery, and cholera infantum was 199, an increase of 34 over that of the month of June. The temperature of the past month having been high, it is not surprising that such an increase should have taken place. The deaths among the

French-Canadians amounted to 452; of this number 364 were under 10 years of age, and 88 above that age. Among the English-speaking 76 deaths took place—41 being under 10 years, and 35 above that age. Among the Protestants there were 80 deaths, 51 were under 10 years and 20 above. The large proportionate number of deaths in one of the wards was attributed to over-crowding, and the existence of a large number of butcheries, glue, soap and candle factories. This state of things will be brought prominently under the notice of the Board of Health, for emendation.

CHOLERA MORBUS AND DISEASES OF SUMMER.—A majority of these attacks are due to the use of unripe and indigestible fruits; stale or decaying food, such as tainted meats or fruit already beginning to decay, and from over-eating and from making use of unseasonable food, too rich and heavy for hot weather. If people could be almost vegetarians during the hot season, they would be all the healthier, sprightlier and happier. But they go on gormandising until nature revolts, and a severe attack of bilious diarrhœa is the result, or they go and drink wines and ales, or perhaps something stronger, until indignant and insulted nature puts in her protest and resents such ill-usage.

Great attention should be paid to the diet especially during the summer months. "Live right and you will be all right," is an old truism that holds good here. "Eat to live," said one, not "live to eat." This rule being observed, and proper diet selected, nothing more is necessary. Even in the management of children, "take care of the stomach and the health will take care of itself" is a truism which seldom is at fault.

BREWERY GRAINS AS FOOD FOR COWS.—The custom of feeding brewery grains to cows to increase the flow of milk is very common in all large cities. The result is an excess of quantity for the time being, with a very decided deterioration in quality; but, sooner or later this food, when used in considerable quantities, produces a poisonous effect on the animals, and renders the milk wholly unfit for use. The cows, if fed on grains alone, become covered with sores and eventually die. The poisons that are used in the manufacture of malt liquors, such as sulphuric acid, cocculus indicus, opium, copperas, alum, and strychnine, naturally settle (especially the dregs of them), in the grains. This furnishes a clue to the increased infant mortality in large cities. The Board of Health in Brooklyn has prescribed all swill milk, *i. e.*, milk from cows fed on the swill or rubbish from breweries and distilleries. Tons of brewery grains are constantly being fed to cows in our large cities, and if the various Boards of Health were at all equal to their duty, they would at once prohibit the sale of milk so produced.

PAPER LEGS AND ARMS.—Paper is already being made use of as a substance out of which to manufacture articles of durability and strength, even to car wheels and flour barrels, which latter for lightness, durability, tightness, and cheapness, are said to be superior to wooden ones, and the former are said to be safer from fracture, and quite as durable as iron.

Experience of this kind should point to paper as much the best article out of which to manufacture artificial limbs, because the present ones are too heavy and clumsy when strong enough, or if made light are too easily broken, not at all durable, whereby much expense and annoyance are entailed upon the wearer. We trust some manufacturer of artificial limbs, may take a practical hint from the Syracuse firm who are making flour barrels out of paper, and give us a better class of artificial limbs than we yet have in the market, and thereby confer a much needed boon upon many a weary sufferer from the present clumsy appliances.

MEDICO-LEGAL CASE.—An important medico-legal case has lately been decided in the Supreme Court in Charlottetown, P. E. I. A man named McLure received a severe injury to his hand and wrist in October last by a powder explosion, and applied to Dr. McKay for treatment. The Dr. treated the case with the utmost skill and care, but from want of care and attention on the part of the patient, interference with the dressing, and the too early use of the hand, it afterwards became weak and useless. An action for malpractice was brought against the Dr., and the damages were laid at $1,000. It was shewn in the evidence that the Dr. had treated the patient in a careful and skilful manner, and had paid every attention to the case. It was also shown that the prescribed direction of the Dr. had been interferred with by the patient, and that this was the means of bring-

ing about an unfavorable result. After a trial which lasted four days, the Dr. was honorably acquitted. We are glad to learn that McKay's reputation will not suffer by this trial. The evidence went to shew that he was not only an intelligent and skillful practitioner, but an excellent man of business.

LACERATION OF THE PERINEUM.—The two clinical lectures by Dr. Goodell, of Philadelphia, on "Laceration of the Perineum, its prevention and cure," are most valuable and original, and are well worthy the perusal of all accoucheurs. Among the causes he says—and we agree with him—"many lacerations are owing to the common mistake of making such long continued and firm pressure on the perineum as to make it hot, dry, and unyielding, and also to prevent it from undergoing an equable dilutation." "In the great majority of labours the perineum does best when let alone." He adds, "In the majority of cases of laceration in which the anal sphincters are involved, you will, I am sorry to say, find that the labor has been an instrumental one. Yet there are cases in which the very use of the forceps protects the perineum." Still he goes on to say, "I have seen so many bad rents attending the use of the instrument, even in practical hands, that I cannot withhold the opinion that, in the majority of cases, nature can accomplish final delivery of the head through the soft parts much better than the physician. . . . . My advice to you, therefore, is that, other things being equal, as soon as the perineum is well dilated, you should remove the forceps." As an ounce of prevention is worth a pound of cure, he says, "apart from a direct and retarding pressure upon the presenting part itself, the only manual aid that I permit myself occasionally to give is as follows. Insert one or two fingers of the right hand into the rectum, and hook up and pull forword the sphincter ani toward the pubes. The thumb of the same hand is meanwhile to be placed upon the fœtal head, scrupulously avoiding all contact with the perineum." This method he strongly advocates. Through sentiments of delicacy many lacerations are not detected at once, and may lead to much inconvenience to the patient, and damage to the reputation of the practitioner. He says, "make it, therefore, an inflexible rule to stretch open the vulva, and visually examine the perineum, and unless the rent is simply cutaneous or very slight indeed, you must perform the primary or immediate operation, that is, you must at once sew up the wound.". He uses wire sutures with an inch deep of hold.

GERMS OF DISEASE.—There seems much reason to fear, says the *Lancet*, that too little attention has been bestowed on the important subject, "What becomes of germs of disease after a cleansing process?" Filth is washed away, but where! If water holding the poison in suspension is thrown into ordinary drains, it will become the agent for distributing disease. This is a very grave consideration. Disinfecting, properly so called, is not a precaution commonly carried out. It is generally deemed sufficient to purify the particular articles supposed to be foul, without regard to what the destination of the germs removed may be. It is very doubtful whether this particular point receives a due share of thought in public institutions. Certainly there is room for improvement in the domestic and laundry methods of "purification." The only effectual measure for arresting the spread of infection is one which destroys the vitality of the germ where it is found.

INSPECTION OF TENEMENT HOUSES IN CITIES.—We would like to see the regulation for the sanitary inspection of tenement houses in vogue in Glasgow, universally adopted, because no class of people are obliged to submit to so great injustice as the class occupying tenement dwellings in large cities. Leaky roofs, cracked walls, paneless windows, doors without proper locks and hinges, walls and ceilings requiring repairs, badly arranged sinks and water closets, imperfect drainage, are only a few of the inconveniences this class is subjected to. They should all be regularly cleansed and whitewashed with *lime wash* (not papered) once or twice a year, under direction of the sanitary officers, to prevent harbouring diseases or spreading epidemics, and a printed list of sanitary instructions kept pasted up in every dwelling by order of the Board of Health. In Glasgow, all houses within certain limits of size are under sanitary police inspection. Every door bears the register of the number of cubic feet of space contained in the dwelling, and the number of inhabitants it is licensed to contain. This should be burned into the wood to prevent removal, and is

most efficacious in preventing over-crowding. Three hundred (300) cubic feet of space is allowed for each adult, and one hundred and fifty for each child. Ordinary dwellings and lodging-houses are distinguished by the character of the marks or ticket.

COMPARATIVE LONGEVITY.—It is generally supposed among life insurance people that women's lives are shorter and more precarious than those of men. In view of this it would be well for such authorities to furnish an explanation for the circumstance that women furnish most examples of prolonged longevity, as found in the collection of the following statistics :—" Official documents establish that, per million inhabitants, there will be found 71,602 who have attained their 60th year in Italy; 72,910 in Great Britain; 76,982 in Holland; 78,187 in Sweden; 86,659 in Denmark; 88,432 in Belgium; and 101,495 in France. Of centenarians, there are 15 per million in Great Britain; 7.3 in France; .7 in Belgium; 2.6 in Sweden, and 1.3 in Holland.

QUININE WINE, ITS COMPOSITION.—Quinine wine, which is so extensively advertised and used at present under the impression of its valuable tonic qualities, is according to an analysis made by Dr. Edwards of Montreal, nothing better than a drunkard-maker. Only one of the samples was of the general character and strength of the official preparation of that name ordered in the British Pharmacopœia. That known as Collin's Quinine Wine, containing" Orange wine," comes nearest the prescribed formula. It is slightly alcoholized and contains one grain of sulphate of quinine to each fluid ounce. That sent for analysis by Mr. John Gardner, and known as Gardner's Quinine Wine, is of this character; the rest are highly alcoholized wines, containing only one-third or one-half the proportion of quinine. Messrs. John F. Lewis & Co's Quinine Port Wine, consisting of inferior red wine (colored with log-wood), citric acid, sugar, tinctures of gentian and orange, and traces of strychnia and brucia, from a small quantity of nux vomica, should certainly be tonic were not its properties in this regard greatly overbalanced by its stimulating character—its alcoholic strength being 68 under proof, equal to 18.5 per cent. of absolute alcohol by weight and 20 per cent. by volume, while there is but one grain of the alkaloid in three fluid ounces, surely a moderate proportion. Campbell's Quinine Wine consists of sherry, tincture of orange peel, citric acid, sugar and sulphate of quinine, the latter in the proportion of half a grain to the fluid ounce. It yielded by distillation, 20 per cent. by volume of absolute alcohol, equal to 64 under proof. Lyman's quinine wine consists of sherry, sugar, citric acid and sulphate of quinine, the latter in the proportion of one grain to three fluid ounces. Its alcoholic strength is 75 under proof—equalling absolute alcohol—15.5 by weight, or 16 per cent. by volume. Messrs. Devine & Bolton's quinine wine consists of Italian or light Sicilian wine, citric acid, sulphate of quinine, the latter in the proportion of one grain in two fluid ounces. Alcoholic strength 77 under proof; absolute alcohol, 14 per cent. by weight or volume. Gardner's quinine wine consists of light Sicilian wine, citric acid, sugar, and sulphate of quinine, the latter in the proportion of one grain to the fluid ounce—as before observed, he is more generous than the rest in his distribution of the valuable alkaloid. The alcoholic strength of the wine is eighty under proof; absolute alcohol, thirteen per cent. by weight; twelve per cent. by volume. For a temperance man this wine is strong—too strong. A retired druggist, speaking of the above " wines," says there are more *drachms* than *scruples* in them—he knows how it is.

ANIMAL VIRUS.—The "*Doctor*" says the practice of vaccination with human virus seems to be nearly falling into decay in Belgium, and giving place to vaccination with animal virus. We quote from the phamplet of Dr. C. R. Drysdale London the following statements made before the London Medical Society last year.

In 1873, 800 of the 1,000 practitioners in Belgium, using vaccine, sent to the State Department for supplies of animal vaccine, and Dr. Warlomont reports that the *points* sent out by him in that year succeeded in 96 per cent. of vaccinations, and in upwards of 60 per cent. of re-vaccinations.

We believe in the superiority of the protection afforded by direct vaccination, and sympathise fully with the statements made by Dr. Warlomont who tells us that " of 10,000 children vaccinated by animal vaccine, and passing through the epidemic of 1870-71, not one was attacked by smallpox.

He adds, this holds true also, for the greater number of patients re-vaccinated by this means." These facts are fully attested by competent observers.

TREATMENT OF DYSPEPSIA.—*The Medico-chirurgical Review* says,—We are by no means sure, indeed, whether the entire dietetic treatment of dyspepsia, ordinarily practised, is not fallacious; and whether, instead of a highly-animalized regimen, it would not be preferable to have recourse to a simple vegetable diet. Mr. Smith [*Fruits and Farinacea*] has collected several cases of the benefits of such a system from the writings of eminent medical authors who had no particular doctrines to support, such as Abercrombie, Cheyne, and Thackrah; and from the considerations we have already adduced, we think that a strong case has been made out in its favour.

MR. RADFORD, Health Inspector of the City of Montreal, at the July meeting of the Board of Health of that city, reported as follows, among other things. "The imperfect construction of privies was pointed out, and Mr. Radford stated that the death rate in Upper St. Dennis street has caused many enquiries from residents, some of whom have become alarmed by these reports. An open gully is supposed to be the cause. He added "that a visit to these places had convinced him "that the present comparatively high rate was not "only due to the condition of the premises or to "infection, but partly to the depressed condition of "the laboring classes of the city. In some cases "the families were found at dinner, and it was "painful to see the children with bread "soaked in boiling water as their only food. In "several cases the pinched look of the little ones, "the presence of the fathers, unable to obtain em-"ployment, and other circumstances, proved that "a large number of our fellow citizens are suffer "ing from disease induced by lack of proper nourishment."

CANADA MEDICAL ASSOCIATION PROGRAMME.—The meeting will be held in the new building of the Windsor Hotel, Montreal, on Wednesday the 12th inst., at 10 a.m. The following papers will be read: The President's address. Crime and Insanity, by Dr. J. Workman, Toronto; Ovariotomy, by Dr. Rosebrugh, Hamilton; Vital Statistics, by Dr. A. B. Larocque, Montreal; Pernicious Anæmia, by Drs. Osler & Bell, Montreal; Addison's Disease, by Dr. Geo. Ross, Montreal; On large doses of Acetate of Lead in post-partum and other Hæmorrhages, by Dr. J. Workman, Toronto; Gastrotomy and Ovariotomy, by Drs. Fuller, E. Robillard, & Rottot, Montreal; Embolism of Central Artery of Retina, by Dr. Buller, Montreal; Excision of Knee, by Dr. Fenwick, Montreal; Remarks on two cases of Tricuspid Stenosis, by Dr. Howard, Montreal; Treatment of Empyema, by Dr. Fulton, Toronto. Vesico-Vaginal Fistula, by Dr. Trenholme, Montreal.

Reports are also expected from the Chairman of the following Committees:

On Surgery, Dr. Ross, Toronto; on Obstetrics, Dr. Richardson, Toronto; on Medicine, Dr. Ross, Montreal; on Medical Literature, Dr. Howard, Montreal; on Climatology, Dr. Marsden, Quebec; on Therapeutics, New Remedies, etc., Dr. Fulton, Toronto; on Necrology, Dr. Osler, Montreal.

Gentlemen intending to read Papers will oblige by at once notifying the General Secretary, A. H. David, M.D., Montreal, mentioning the titles thereof, in order that they may be added to this list.

FACULTIES OF THE MIND.—Dr. Ainslie Hollis, in the St. Bartholomew Hospital Reports, protests against the growing disposition to localize too closely the several faculties of the mind in the different parts of the brain. "It is preposterous," he says, "to expect that similar cells are reserved for similar functions in all human brains, knowing what we do of the great diversity in man's mental culture, his various occupations, proclivities and talents."

THE LATE DR. SOMERVILLE SCOTT ALISON, M.D F.R.C.P., &c,, LONDON.—It is with feelings of sorrow that we have to refer to the death of this distinguished and universally regretted physician, on the 11th July last. He was chiefly engaged in the treatment of affections of the heart and lungs, and in which he was one of the most skilful diagnosists. He was formerly physician to the Brompton Consumptive Hospital. He devised and perfected the "Differential Stethoscope," which has been much appreciated by those whose opportunities have enabled them to test its usefulness, and which, in affections of the heart especially has afforded the most satisfactory results. He

was a frequent contributor to the medical literature of the day, and contributed largely to the proceedings of the Royal Society, &c., and was the author of several scientific works, particularly that standard work entitled "The Physical Examination of the Chest in Pulmonary Consumption and its Intercurrent Diseases."

BRITISH MEDICAL ASSOCIATION.—The 45th annual meeting of the British Medical Association was held in Manchester, commencing on the 7th ult. Dr. M. A. E. Wilkinson was appointed President for the ensuing year. Dr. W. Roberts of Manchester delivered the address on Medicine; Spencer Wells the address on Surgery; and Dr. Priestly of London, the address on Obstetrics.

A TESTIMONIAL.—Our attention has been called to a letter in the Toronto "Mail," written by some over-zealous friend of Dr. Kincaid, of Peterboro, lauding that gentleman to the skies for some miraculous cure said to have been performed by him on the wife of the writer. We can hardly believe it possible that Dr. Kincaid had any knowledge of his friend's intention or he would, both in his own interest and for the honor and dignity of the profession to which he belongs, have dissuaded him from so open, unblushing, and doubtful a compliment.

OVARIAN TUMOR IN A CHILD.—A case of ovarian tumor in a child twelve years of age, is reported by Dr. McGraw of Detroit, in the *Toledo Journal*, (July No.) The tumor was of rapid growth; the child was undeveloped sexually, and had never menstruated. She was tapped and three gallons of bloody serum removed, containing some red blood corpuscles, but none of the usual granular corpuscles. The fluid rapidly re-accumulated, and at the end of four weeks ovariotomy was performed. The patient made a good recovery.

PROTECTION AGAINST FLIES—FOR DOCTOR'S HORSES.—

℞—Linseed oil,	℥ xij;
Carbolic-acid crystals,	℥ ij;
Glycerine,	℥ jss.

Dissolve the glycerine and add the oil. Apply daily to legs, mane, tail, face, neck, and flanks; and the flies are driven off, much to the delight of the horses.

CONTAGION OF TYPHOID FEVER.—The question of the contagion of typhoid fever has been examined by M. Guerin by the experimental method. He injected into a number of rabbits, fecal matter from typhoid subjects, and he finds it has a poisonous principle, at leaving the system, capable of causing death. Various other excrementitious products of persons in typhoid fever, such as urine, blood, mesenteric liquids, etc., have likewise this poisonous property, which is retained for several months. It is absent from the fecal matter of healthy subjects.

LONDON HOSPITAL MEDICAL COLLEGE.—The following is an extract from the announcement of the London Hospital Medical College.

Graduates of any Canadian or American University or Medical College (on showing their Diplomas) will be admitted to six months' Dressership and perpetual Surgical and medical Practice for the fee of ten guineas. Attendance on Lectures will be free, but if Certificates are required the Courses must be paid for. Any number of Midwifery cases may be attended.

THE ONTARIO VETERINARY COLLEGE.—We need offer no apology for again alluding to this useful and valuable institution in our midst. There is no greater friend of the human race than a good faithful horse, and when he becomes diseased or disabled much may be done for him by veterinary skill. Through the kindness of Prof. Smith, the Principal, we were shown through the school and infirmary, and were much pleased with the internal arrangements. The school is thoroughly equipped with models, preparations, and specimens for teaching purposes; the dissecting room is large and commodious, and the infirmary is neatly fitted up with numerous stalls for sick animals. This college is not only well known and highly prized in Canada, but is also favourably known in the United States, and every year numbers of students come here to attend the course. Prof. Smith has an able staff associated with him in his work. We cannot commend the school too highly.

Marshal MacMahon of France comes of a medical family; his father and grandfather were both physicians.

PROF. DARLING of New York, Dr. E. C. Seguin, and Prof. Sayre, are in England at present.

DAMIANA A FRAUD.—Dr. Lunsford P. Yandell says:—"Damiana is almost certainly an unmitigated fraud. Three distinct vegetable products are sold under the name. While it may have produced some very remarkable results, these have been brought about, in all probability, through the imagination of the patient. Could a medicine be discovered possessing the aphrodisiac power attributed to damiana half of the arable land of the earth would be devoted to its cultivation, and the supply would then not equal the demand."

GOUT.—M. Trehyon in the *Rev. de Therap*, recommends highly the benzoate of lithium in the treatment of gout. It, unlike the other lithium salts, is readily soluble in water, and the benzoic acid being converted into hippuric acid diminishes the elimination of uric acid. Under the use of the benzoate of lithium, experience showed that the attacks of gout become milder and less frequent and the pains disappeared.

ALBUMINATE OF IRON.—This remedy has produced peculiarly good results in the hands of French physicians in anæmia and chlorosis. It is quite soluble and easily absorbed into the system, and capable of being borne on the weakest stomach.

DRAINAGE IN ANASARCA.—At a late meeting of the Clinical Society of London, Dr. Southey described his method of drainage in anasarca. It consists in the introduction of small silver canulæ, about the size of hypodermic needles, to which small rubber tubing is attached and conducted into pans beneath the bed. A surprisingly large amount of fluid may be removed in this way by a single tube in each leg.

ESMARCH ON CANCER.—In a recent lecture on cancer, Prof. Esmarch said that he had frequently seen cancer originate upon a syphilitic basis, and often where the syphilis had been latent for a long period. He advised that cancers and malignant growths, wherever occurring, should be treated by arsenic and iodide of potassium internally and externally, before proceeding to an operation.

OVARIOTOMY DURING PREGNANCY.—Mr. Spencer Wells, of London, has performed ovariotomy nine times during pregnancy, and with but one fatal result.

PERSONAL.—Dr. John Wishart, of Trinity Medical School, Toronto, has successfully passed the examination of the Royal College of Surgeons, England, and was duly admitted to the membership of that body. James Fulton, M.D., Trinity Medical College, has also successfully passed his primary examination for the M.R.C.S., England.

THE DEATH of Prof. Crosby, of Bellevue Hospital Medical College, New York, on the 10th ult., of apoplexy, is mentioned in our New York exchanges. Also the death of Dr. Sager, of Detroit, formerly of Ann Arbor Medical College.

MORTALITY RATE.—Munich has at present the highest mortality rate—being 42 per 1,000.

Wife murder seems to be the latest form of insanity in Canada.

The Senate of the London University has resolved to admit women to degrees in medicine.

Reports of Societies.

HURON MEDICAL ASSOCIATION.

The third Quarterly Meeting of the Huron Medical Association for the year 1877 was held in Clinton, on July 17th.

The following members of the Association were present:—Drs. McLean, Bethune, Worthington, Sloan, Holmes, Gibson, Young, Adams, Hanover, and Stewart. Dr. McLean, Vice President, occupied the chair.

After the minutes of the previous meeting were read and approved, Dr. Stewart introduced an unmarried lady, 61 years of age, affected with true progressive bulbar paralysis. The disease commenced eighteen months ago. The first symptom noticed was slight embarassment in speech. Her present condition is as follows:—

(1) There is complete paralysis of motion of the tongue. Common and special sensation are normal. The tongue is slightly atrophied and is the seat of fibrillar contractions.

(2) The orbicularis oris and buccinator are both affected. The lower jaw is drawn backwards; there is no lateral movement of the jaw.

(3) There is an excessive flow of saliva.

(4) Speech is so affected that it is impossible to understand a word she says.

(5) Both the first and second acts of deglutition are greatly interfered with. She has more difficulty in swallowing liquids than solids. Particles of food at times find their way into the larnyx, giving rise to severe attacks of partial asphyxia.

(6) There is slight loss of power in the sterno-mastoid and trapezius.

(7) When walking (especially if the eyes are closed) she is apt to stagger.

(8) The mind is clear. She is very emotional.

She has been taking 1–100 of a grain of atropine twice daily for a month. Which has had the effect of diminishing the flow of saliva considerably.

Dr. Holmes showed a woman, aged 39, affected with splenic leucocythæmia. The splenic tumor first attracted her attention eighteen months ago—since her last confinement which happened on April 7th, 1877. The tumor has been growing very rapidly. The spleen in this case is not uniformly enlarged. The increase in size is principally from the lower border. Six specimens of blood examined gave an average of from 20—30 white conpuscles to a field.

Dr. Gibson brought a specimen of blood under the notice of the Society, which, under the microscope, presented the following characteristics:—The proportion of corpuscles appeared to be two red to one white. A few of the white cells were large masses of nucleated protoplasm having a diameter of not less than the 1–1000 of an inch. The patient from whom the blood was taken is a woman, aged 42, mother of twelve children. The disease commenced about ten months ago; the first symptom noticed was enlargement of the abdomen. This has steadily increased and on examination an enormous spleen is found occupying fully half the abdominal cavity. The enlarged spleen extends from the 6th rib to the ant. sup. spine of the ilium. Anteriorly above the umbilicus, it extends fully an inch and a half to the right of the median line, but it scarcely reaches the median line below the umbilicus. Both the inguinal and axillary glands are enlarged in this case.

Dr. Sloan read a very instructive paper on the "Nature and Treatment of Diphtheria." This paper will appear in the CANADA LANCET.

Dr. Bethune, of Wingham, was appointed to read a paper at the next meeting of the Association.

MICHIGAN STATE BOARD OF HEALTH.

The regular quarterly meeting of this board was held at Lansing on July 10th.

Dr. Kedzie made a short report on the chemical examination of a specimen of cheese believed to have caused sickness in several families. He examined it for all the mineral poisons but found none. He concluded that the poison must be organic in its nature, and that it might come from one of three causes. 1st, diseased milk; 2nd, chemical decomposition of the cheese after it was made; and 3d, bad rennet. This poisoning by cheese being so common, he was authorized to visit various cheese factories and further investigate the subjeet.

Dr. Kedzie made a report on illuminating oils, in which he stated that the legislature had maintained the standard flash test of 140° F. and had provided a chill test for paraffine which will require an improved quality of oil.

Dr. Lyster, sent a communication in relation to the small-pox in Detroit. The total number of cases reported for the year ending June 30 was 278, and the number of deaths 113. He pointed out the fact that this preventable disease had been allowed to prevail in Detroit for a full year, but at the present time the authorities are taking active measures to prevent the spread of this loathsome disease. He urged the adoption of a resolution for vaccination throughout the state. The board adopted the following:

Whereas, by means of vaccination and re-vaccination the people may secure complete immunity from small-pox,

Resolved, that all local boards of health be advised and requested to direct their health physicians to offer every year vaccination with bovine vaccine virus to every child not previously vaccinated and to all other persons not vaccinated within five years, without cost to the vaccinated, but at the general expense of the locality, as provided for townships in section 1736, compiled laws 1871.

Mr. Parker was asked to attend the meeting of the American social sicence association which meets at Saratoga, Sept. 4; and Dr. Hitchcock was asked to attend the annual meeting of the American association for the cure of inebriates, which meets in Chicago, and report anything of interest or value on the subject of public health.

AMERICAN PHARMACEUTICAL ASSOCIATION.

We understand this Association holds its annual meeting in Toronto, commencing September 4th. The city Council have granted the use of the council chamber for the purpose. In connection with the meeting there is an exhibition of chemical and pharmaceutical products; this will be held in the Temperance Hall, and will be well worth a visit. We understand Messrs. Powers and Weightman's consignment alone is valued at fifteen thousand dollars.

Books and Pamphlets.

SURGICAL OBSERVATIONS, WITH CASES AND OBSERVATIONS, by J. Mason Warner, M.D., Surgeon, Massachusetts Gen. Hospital. Boston: Ticknor & Fields, 1867. Toronto: Willing & Williamson. Price $3.50.

This work never was properly published. It was issued in an informal manner after the author's death, and was soon after withdrawn and stored away by the family until the present time. The balance of the edition is now placed in the hands of A. Williams & Co., of Boston, for sale. The volume contains the results of the surgical experience of the author. Many of the cases are illustrated. The regions of the body, head, face, neck, chest, abdomen, genito-urinary organs, etc., etc., have been used as a convenient method of classification. A chapter or two at the end is devoted to gun-shot wounds, tumors and miscellaneous cases. It is a work that will be read with interest and profit, although several years have elapsed since it was first published.

CYCLOPÆDIA OF PRACTICAL MEDICINE, Edited by Dr. H. Von Zeimssen. New York: Wm. Wood & Co.

To those who seek a good acquaintance with German medical literature, we can highly recommend this admirably executed translation now rapidly approaching conclusion. The entire range of practice of medicine is included in the scope of this cyclopædia, adapted not only for the bookworms in the profession, but for the mass of practitioners, a work aiming at general instruction. The reviewer cannot fail to be delighted with the energy, originality, labour and freshness of the numerous contributors, equally so with the evidences of extreme care, faithfulness, and elegance displayed by the several translators. Volumes XI. and XII. are devoted to diseases of the nervous system; Volume XV. to diseases of the kidney, by Professor Carl Bartels, of Kiel, and Professor Wilhelm Ebstein, of Gottingen; albuminuria, general symptoms of urinal disorders, hyperæmia, ischæmia, parenchymatous nephritis, acute do. of pregnancy, renal cirrhosis, amyloid degeneration, complications of amyloid degeneration of the kidney, with chronic parenchymatous nephritis and with contracting kidney, inflammation of the kidney, of the pelvis of the kidney, and of the peri-nephritic tissues, with termination in suppuration, degenerative process of kidneys, tumors of the kidney, of the pelvis of the kidney, and of the peri-nephritic tissue; foreign bodies in the kidney, pelvis and ureters; animal parasites of kidneys, anomalies in the position, form and number of the kidneys, and diseases of the renal arteries, are severally treated of in the exhaustive manner peculiar to German writers. The translators of this 15th volume, Dr. Reginald Southey, M.D., Oxon, London, and Dr. Robert Bertolet, of Philadelphia, have emulated their predecessors in the care and labour displayed in the rendering into English the carefully written treatises of the contributors.

PRACTIONERS' REFERENCE-BOOK. Adapted to the use of the Physician, the Pharmacist, and the Student, by Richard J. Dunglison, M.D., Philadelphia: Lindsay & Blakiston. Pp. 335.

This is a most excellent reference book. It contains all sorts of information that a medical man requires, and which is sometimes inconvenient to obtain, scattered as it is through different text books and treatises. Among the subjects treated of are the weights and measures of the pharmacopœia, their relation to metrical measures; the solubility of medicines; number of drops in a fluid drachm; doses of medicines when given by the several methods, and graded for the several ages; incompatibles; selected prescriptions; obstetric memoranda; diagnostic syllabus of uterine inflammations; the examination of urine; poisons; directions for resuscitating the apparently drowned; principles of disinfection; dietetic rules and precepts; how to conduct post-mortem examinations, &c. The book is illustrated, well printed, and neatly bound, and will be found a useful compend.

ANALYSIS OF SEVEN HUNDRED AND SEVENTY-FOUR CASES OE SKIN DISEASE, treated at the Demilt Dispensary during the year 1876, with cases and remarks on treatment, By L. D. Bulkley, A.M., M.D., Physician to the Skin Department, Demilt Dispensary, New York, &c.

VIBURNUM PRUNIFOLIUM (Black Haw), in the treatment of the Diseases of Women, by Edward W. Jenks, M.D., Detroit Medical College.

FOURTH ANNUAL REPORT OF THE STATE INEBRIATE ASYLUM, Binghampton, N.Y., for 1876, Dr. D. H. Kitchen, Superintendent,

CASE OF ANEURISM OF THE HEPATIC ARTERY, with Multiple Abscesses of the Liver, by Drs. Ross and Osler, McGill Medical College, Montreal.

ABDOMINAL PREGNANCY TREATED BY LAPAROTOMY, by T. Gaillard Thomas, M.D. New York. Reprint from volume 1, Gynecological Transactions 1876.

A CASE OF TUBERCULAR DROPSY OF THE ABDOMEN, SIMULATING OVARIAN TUMOR, by Theodore A. McGraw, M. D., Professor of Surgery Detroit Medical College.

ON THE SURGICAL COMPLICATIONS AND SEQUELS OF FEVERS. Lecture V. Toner Lecture. By William W. Keen, M.D., of Philadelphia.

EPITHELIOMA PENIS. Operations by Christopher Johnston, M.D., Prof. of Surgery, University of Maryland. Reprint from the Maryland Medical Journal for August.

ON THE ANATOMICAL CAUSES AND THE NATURE OF SYMPATHETIC OPHTHALMIA, by Dr. Adolf Alt, Toronto, late Resident and Assistant Surgeon to the New York Ophthalmic and Aural Institute.

CANADIAN MEDICAL ASSOCIATION.—Certificates entitling the holder to a return ticket at reduced rates may be had on application to Dr. David, Montreal, or Dr. Zimmerman, Toronto.

In addition to those already mentioned, a paper on "The Economy of Public Sanitation," will be read by Dr. Playter, editor of the *Sanitary Journal*. Also an interesting paper by Dr. Wm. Canniff of Toronto.

APPOINTMENTS.—Prof. W. H. Ellis, of Trinity Medical School, has been appointed Professor of Practical Chemistry in University College, Toronto.

Dr. C. A. Wood, of Ottawa, has been appointed to the Chair of Chemistry in Bishop's College, Montreal.

Dr. Lachapelle has been appointed Professor of Hygiene, and Dr. Lamarche Professor of Histology and Microscopy, in the Victoria School of Medicine and Surgery, Montreal.

A. B. Taylor, M.D., of Allenford, to be an Associate Coroner for the County of Simcoe.

MISCELLANEOUS.

A monument to Liebig was unveiled at Darmstadt, his native town, May 12th.

HUMAN MILK.—Chinese women sell their milk for about fifty cents per pint. The milking is performed in public to insure purity. It is highly esteemed as a nourishing food for old people and consumptives.

REMOVAL OF THE KIDNEY.—Dr. Jessop of Leeds, lately removed the left kidney from a child two years of age. The incision was similar to that for colotomy. A whip-cord ligature was placed around the vessels and ureter and firmly tied. The diseased kidney weighed sixteen ounces. The child was doing well at last reports.

Births, Marriages and Deaths.

On the 10th ult., R. S. B. O'Brian, Esq., M.D. C.M., of Grenville, Que., to Sarah Eugenia, youngest daughter of John McLean, Esq., Elora,

On the 14th ult., R. S. Moore, M.D., of Mount Vernon, Indiana, to Bessie H., youngest daughter of the late Richard Williams, Esq., Toronto.

In Toronto on the 18th ult', N. R. Oliver, M.D., of London, to Mrs. Anne Smith, widow of the late David Smith, of Brampton.

On the 28th ult., John McNaughton, M.D., of Newcastle, to Agnes, second daughter of the late Captain Wilkinson, of Clarke.

In Toronto. on the 13th ult., John Hostetter, M.D., M.R.C.S., Eng., aged 44 years.

On the 8th ult., J. F. Dewar, M.D., F.R.C.S., Ed., in the 43rd year of his age.

---

* *The charge for notice of Births, Marriages and Deaths, is fifty cents, which should be forwarded in postage stamps with the communication.*

THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

VOL. X. TORONTO, OCT. 1ST, 1877. No. 2.

Original Communications.

FORCIBLE FLEXION IN FIBROUS ADHESIONS.

BY JOHN GARDNER, M.D., HESPELER, ONT.

Thinking it of interest, I will take the liberty of giving you a history of my own case with treatment employed. About fourteen years ago I was employed as a surveyor on the shores of Lake Superior. In my work I received a severe wound close to the inner margin of the patella of the right knee entering the joint, from which the synovial fluid escaped in considerable quantity. I was so situated that no medical aid could be procured, and merely bandaged it up and made arrange ments to start for home. Being many miles distant, it was very painful during my journey, and it was evident that synovitis had set in. On arriving home, a medical man was sent for and diagnosed synovitis. Hot poultices were applied week after week, the joint suppurating profusely all the time; the leg was kept perfectly straight and no attempt at motion used whatever. At my request the poultices were discontinued and other dressing employed. The wound gradually healed up, so that at the end of nine months I was able to leave my bed, but not the house for several weeks after.

Since then I have myself studied medicine, and have been employed in the practice of my profession in California and other parts; but my leg has always been a great trouble to me—being perfectly straight and stiff, I walked with a limp. If my toe came in contact with anything, it produced great pain in the knee, and while riding in my buggy it was very inconvenient, not being able to sit square on the seat or on a chair, owing to the amount of pressure that was produced on the back part of the thigh.

I consulted many eminent surgeons in the United States, some of whom thought by operating, some motion could be obtained in the joint, others did not favour any interference; but being myself desirous of gaining the use of my limb, returned home with that intent. After coming here, I consulted Dr. Sylvester of Galt, and he considered an operation advisable. May 28th was fixed upon as the day, and the operation was proceeded with as follows: I was placed on a table and brought thoroughly under the influence of chloroform by Dr. Philips, I was then drawn well down over the end of the table and a block of wood was placed under the lower end of the femur to act as a fulcrum, the thigh was well fixed by assistants, and flexion was attempted. At first it was thought impossible to break down the adhesions that had formed. Dr. Sylvester informs me that the amount of force required far exceeded his expectations, but by continued pressure the adhesions gradually gave way with audible cracking sounds, and the leg was brought down to nearly right angles. It was worked up and down several times with ease. I was then placed in bed and the knee encased in rubber tubing, and water kept constantly running through, which kept the leg cool and prevented any inflammation. Morphia was administered, and very little pain followed, though the parts were somewhat tender. The leg was at first kept quiet and straight. At the end of eight days I was again chloroformed and the leg flexed; but little force was required to bring it down. This time my leg was kept bent at nearly right angles, and tubing used as before. After the bandages were removed, the leg gradually straightened out. I now procured one of Tiemann's anchylosis splints with a screw behind the knee, and used this twice a day flexing the leg to nearly a right angle. It is now three months since the operation, and I am able to walk by the aid of a cane, and can flex my leg by muscular action to an angle of 45 degrees. I might here add that the extensor muscles of the thigh were very much atrophied, but are gaining in size and strength. I am confident that in the course of time, I will walk as well as ever.

I take this opportunity of thanking those who assisted in the operation, and especially Dr. Sylvester, whose attention has been untiring.

CASE OF EMPYEMA.—TREATMENT BY CARBOLATED IODINE LOTION.

BY J. FULTON, M.D., M.R.C.S., ENG., L.R.C.P., LOND.

In the number of this Journal for October, 1875, is reported a case of Empyema occurring in a man aged 70 years, under my care, in which recovery took place; and I now have to report a similar case occurring to a patient 23 years of age, which resulted in death. The fatal result, however, was not immediately due to empyema, but rather to the occurrence of an obstinate diarrhœa, with which the case was complicated, and which resisted all efforts at treatment until the patient was completely worn out by the long continued and exhaustive discharges from the bowels. The following is a history of the case:—

Wm. H., æt 23; born of healthy parents; a lather by trade; mother, brothers and sisters all living and healthy; father died of pneumonia; says he had gonorrhœa and chancroid; general health good up to the time of attack; no visible signs of constitutional syphilis; slightly addicted to intemperance, tall, muscular, weight about 160 pounds On or about the 24th of last May he caught a severe cold by lying on the damp grass, and was soon after seized with pleuritic pain in the right side. When I first saw him he was suffering acute pain in the right side, with difficulty of breathing, pulse 120, skin hot and dry, and symptoms indicating acute pleuritis of the right side. I put him under appropriate treatment, and in a short time he was relieved; he breathed more easily, and in a few days began to sit up. There was evidence of effusion in the pleural cavity on physical examination, but there was very little difficulty in breathing, and the patient was able to assume the horizontal position. There was no bulging of the intercostal spaces, nor increase in the measurement of the right side of the chest. The symptoms were not urgent, and I fully believed the absorbents would in a short time remove the fluid. With that end in view I placed him upon iodide of potassium combined with diuretics, and gave him occasional doses of sulphate of magnesia, compound jalap powder, &c. Blisters were also applied to the side of the chest, and repeated at intervals. Under this treatment he seemed to improve for the first eight or ten days, after which the fluid increased, and at the end of a week or ten days the chest was eompletely filled. The patient was now obliged to remain in the upright position. There was only slight bulging of the intercostal spaces, and no appreciable increase in measurement of this side of the chest. The pulse was, and had been for some time from 96 to 100. At this juncture I proposed tapping the chest in order to get rid of the fluid, to which the patient consented, and desired to have Dr. Russell of this city called to consultation. We accordingly met on the 18th of June, and after a careful examination, he coincided with me in the propriety of paracentesis, which was done by means of an aspirator, and twenty ounces of lemon colored serum was removed. This gave immediate relief, and the patient improved for a few days, but the fluid began to re-accumulate, and in about eight days the chest was as full as before when I again introduced the aspirator needle, and to my astonishment withdrew fifty ounces of creamy looking pus! Although every precaution was taken to prevent it, some air may have gained entrance during the first operation. This operation gave great relief, and the patient was better and continued so for about a week, duriug which he was able to get up and go out once for a drive. The fluid, however, soon began to accumulate again, and caused him more distress than before. Long before the chest was half full of fluid, he complained of pain and tenderness in the abdomen, chiefly in the epigastric and right hypochondriac region—so much so that I began to fear pointing through the diaphragm into the abdomen. I now decided to employ drainage by the introduction of an India rubber tube in the chest. Dr. Russell was again called in consultation, and a tube was introduced between the 8th and 9th ribs below the angle of the scapula, and allowed to remain. About thirty ounces of foul smelling pus escaped on the introduction of the tube, and on the following day about as much more was withdrawn. The tube was introduced by means of a trocar and canula—the rubber tube having been selected to fit exactly the canula through which it was slipped after the trocar was withdrawn. The tube used was about fourteen inches in length, two inches of it being within the chest. It was prevented from slipping out by tying a string around it close to the chest, sufficiently firm to prevent slipping, and making it secure by strips of adhesive plaster. The tube

was tied at the extremity, coiled up and retained *in situ* also by adhesive plaster after use. Through this tube the pus was withdrawn and the cavity washed out once every day with a lotion containing carbolic acid and tincture of iodine* in the proportion of half an ounce of each to the pint of warm water, a combination which had been so successfully employed in the former case. This process was accomplished by means of a Davidson's syringe attached to the extremity of the tube. Under this treatment the formation of pus rapidly diminished, the lung began to expand, and great hopes were entertained of his speedy recovery. The internal treatment consisted of tonics of quinine, iron, and strychnine, together with syrup of the iodide of iron, cod-liver oil, and suitable diet. A few days after the tube was inserted, diarrhœa set in, and continued with more or less severity until his death, which took place on the 13th of August. The diarrhœa was preceded by tenderness in the iliac regions, and was attended more especially towards the close with discharges of pus, no doubt from extensive ulceration of Peyer's glands. There was no hemorrhage. The discharges from the bowels were also very offensive. The condition of the chest after the introduction of the tube was, on the whole, very satisfactory, and but for this untoward complication the patient would in all probability have made a good recovery. One strange feature in the case was the uniform character of the pulse, which varied very slightly during the whole progress of the case—never reaching higher than 120—generally about 112-15. He was also able to take a large amount of nourishmemt for a person in his condition. Every known means was resorted to, in order to arrest the diarrhœa, but without avail. It seemed from the very outset to be beyond control, and its continuance produced great emaciation. He was reduced to a mere skeleton before his death. He also suffered very much from dysuria, especially at the outset of the diarrhœa, and near the close of his trouble the throat became extensively ulcerated, with loss of voice. The posterior surface of the pharynx, the fauces, and the soft palate were covered with superficial greyish ulcers. Tincture of iodine was applied to the throat every second day, supplemented by a wash of liq. sodæ, chlorinatæ in the interim, with marked benefit. There was no *post mortem* examination.

* This lotion is perfectly transparent; the carbolic acid bleaches the tincture of iodine.

REMARKS.—The plan of treatment adopted in this case and in the one previously reported, has many advantages over the ordinary drainage tube. The tube is very easily introduced, and fits the opening so tightly, during the first few days, that it can be made entirely to exclude the air from the chest, during a most critical period. This is accomplished by allowing the pus to flow under water, and after a sufficient quantity has been removed, the extremity of the tube is tied firmly, coiled up, and retained in situ by strips of adhesive plaster. The whole of the pus need not, and should not be removed at once. If any signs of faintness occur during the withdrawal of the fluid, the tube can be tied and further removal discontinued until the next day, or next again. The tube becomes loose in the chest, and air passes in by the side of it, but not until the lapse of several days, when the greatest danger is passed. To the extremity of the tube a Davidson syringe* can be easily attached, and will be found indispensable in emptying the chest of contained pus, or of pumping in fluid for the purpose of washing out or disinfecting the cavity. In both these cases this apparatus was used for removing the accumulated pus from day to day, and for the subsequent washing out of the chest, with the carbolated iodine lotion.

Correspondence.

THE MEDICAL PROFESSION IN MICHIGAN.

To the Editor of the CANADA LANCET.

SIR,—A few years ago quite a number of medical men of Ontario were opposed to the best medical law the world has ever seen, notwithstanding, perhaps, some little imperfections, which will be remedied in due time. I believe, however, the number of croakers at present is insignificant, yet there are a few still left to harp on the injustice of fees, taxes and the general tyranny of the Council. I wish one or two of this class could be prevailed

* A Davidson's syringe can be made to take the place of an aspirator by connecting an aspirator needle to its extremity by a piece of rubber tubing. If the syringe is filled with water before the needle is introduced and the delivery tube kept under water while the fluid is being drawn off, no air can possibly enter.

upon to cross the borders into one of the States where exists unrestricted liberty or free trade, in all matters medical. I am convinced the worst of such croakers would be cured of his malady by a tour into Michigan, for example, extending over so short a time as four weeks. Should any of these sore-heads see fit to act upon my suggestion, I would recommend him to invite Mr. Gordon Brown of the *Globe* to join him on his tour of observation.

Business, of a non-professional character, demanded my attention recently in Michigan, where I remained for a few months. I improved the time as much as possible by inquiring into the state of society, more especially as regards education and the professions. The common school system is not as good as ours was twenty years ago. There is no regular standard of qualification for teachers. Any one may be a superintendent, and is elected on town meeting day as are our Councillors. Such superintendents, often illiterate men, are the examiners of candidates for school certificates. The schools are not open more than two-thirds of the year. Male teachers are employed in winter and a female in summer. A poor high-school they call a college, and from such places issue forth yearly a host of "graduates."

As a class, the lawyers are ignorant and unrefined, although the law requires an examination on entering the profession—such examination being limited to a knowledge of law, time and education being counted only—and is conducted in open court by a circuit judge. It is strange that this should be the case when no such test is applied in medicine. But if we look at home, we shall find, that amongst those who advocate free trade in medicine, not one has demanded free trade in law. Which is the most valuable, a man's property, or his life ?

As might be expected in a country enjoying free trade in medical practice, the State is overrun by quacks, both regular and irregular. To one educated practitioner there are at least six or seven who can lay no claim to being educated. I know of one beautiful town of two thousand inhabitants situated in the midst of a rich agricultural country, and far from competition, which has six quacks and only one educated doctor. This ratio will stand good all over the State. Many of these quacks have some kind of diploma obtained in Indiana or elsewhere, and claim to be regulars, and are loud in the denunciation of quackery. But after all they are very little above the ordinary quack in their education, their manners and their practice. The larger number, however, have no qualifications for the profession further than that brazen-facedness so essential to the successful charlatan. Nothing strikes the Canadian more forcibly than the uncouthness, general shabbiness and the transparent lack of dignity and all refinement in the class of men, taken as a whole, addressed as "doctor." In Canada, a hod-carrier would be ashamed to go "down town" in the garb in which I have often seen these "professional" gentlemen go about on the streets.

The majority of these men are of low tastes and habits, and would disgrace any calling. Gain being their only motive power, they do not scruple to resort to any trick, or crime I may add, that will promote their ends. Just fancy the annoyances the six quacks above mentioned can daily bring to bear on the life of the one educated and refined practitioner with whom they are in competition. This gentleman would give half a year's income, besides a liberal annual tax to get rid of his tormentors. Think of that, ye croakers of Ontario. All the educated practitioners with whom I came in contact would joyfully make any reasonable material sacrifice to have the Ontario Medical Act transcribed on the Michigan statute book.

However desirous the medical schools may be of elevating the standard of professional education they are unable to do so. Our own past experience teaches us that most young men will take the nearest cut. If the schools were to require a long course they might as well close their doors. The result is that the vast majority of regular graduates are far below the average standard in Ontario. Nor can there be a change before the laws set a premium on education and practical training, as is the case in our own country. There is a re-action going on all over the Union in reference to this matter. A few of the States have enacted laws restricting medical practice, but the process will be a slow one at best, and the benefits will come tardily even where such laws exist. It will take a long time to educate the people up to the necessity of enforcing such laws, however much they may approve of them in theory. When the bars are down it is hard to put them up again. We Canadians should draw from this a useful les-

son. As medical men, we should value the inestimable privileges conferred upon us by the State, and manifest our gratitude by, not only respecting our special laws, but also by uniting to make them more effective for the accomplishment of the good and worthy ends for which they were enacted.

The fact that here and there a quack may be found plying his vocation, is but a weak argument against our laws. The man who so contravenes the law is a law-breaker, and his vocation is thereby made so odious that but few will follow his example. A few more short years and the quack will for ever disappear.

The people, even more than medical men, are interested in this question. It is appalling to think of the amount of suffering, physical and mental, daily superinduced or prolonged by the hundreds of quacks who prey on the sick and suffering in the state of Michigan alone. I will give one illustration. A medical friend asked me to ride with him to see an elderly lady said to be suffering from ovarian tumor. We found her in bed. She stated that she had suffered for eight years, from what the seven or eight physicians whom she had consulted in that time, called ovarian tumor. She informed us she had been recently treated by two physicians, one of them from a city some fifteen miles distant. They told her that an operation would be necessary—of course they had no idea of operating, that was a mere blind,—and that in any event her case was extremely doubtful. After listening to this history, we proceeded to take the dimensions of the tumor, but a most diligent search failed to reveal either its size or location. In short, there was no tumor at all, nor had there ever been. The woman suffered from chronic congestion of the kidneys, and was speedily relieved by suitable treatment. Who can estimate the amount of mental suffering endured by this woman during the long eight years she believed herself to be the victim of an incurable and fatal disease? This is the unhappy condition of a people enjoying, what some amongst us would call, the blessing of free trade in medicine.

Every where, I found that Canadian graduates are held in high esteem, their superiority being freely acknowledged. As a consequence, all worthy Canadian practitioners locating there, are in immediate demand, and soon find themselves in remunerative employment. The compliment thus paid to Canadian talent and Canadian institutions, was to me a source of much pride and gratification. Canadian practitioners are to be found all over the State, and there is room for hundreds more. Most of the medical talent of the State is concentrated in the larger centres of population, while pleasant villages and beautiful country places are left the almost undisputed preserves of the charlatans.

OBSERVER.

October 13th, 1877.

Selected Articles.

THE DOCTRINE OF CONTAGIUM VIVUM AND ITS APPLICATIONS TO MEDICINE.*

GENTLEMEN,—The notion that contagious diseases are produced by minute organisms has prevailed in a vague way from a remote age; but it is only within the last twenty years—since the publication of Pasteur's researches on fermentation and putrefaction—that it has assumed the position of a serious pathological doctrine. In the last decade startling discoveries of organisms in the blood have given this doctrine the support of actual observation; and its application as a guide in the treatment of wounds by Professor Lister has made it a subject of universal interest to medical practitioners.

The resemblance between a contagious fever and the action of yeast in fermentation—or the action of bacteria in decomposition—is in many points so striking that it is difficult to avoid the impression that there is some real analogy between them. If, for example, we compare the action of yeast with the small-pox, this resemblance comes out very distinctly, as the following experiment will show. I filled two pint bottles, A and B with fresh saccharine urine, and inserted a delicate thermometer in each. A was inoculated, with a minute quantity of yeast, but nothing was added to B. Both bottles were then placed in a warm place in my room, at a temperature of about 70° Fahr. In order to get a correct standard of temperature for comparison, I placed beside these a third bottle, C, filled with water, and inserted a delicate thermometer in it. All these bottles were carefully swathed in cotton-wadding, for the purpose of isolating their individual temperatures, and to obviate as much as possible the disturbing effects of the varying tempera-

*Address in Medicine by W. Roberts, M. D., F. R. S. Manchester, delivered at the British Medical Association August 9th.

ture of the room. For twelve hours no change took place; but at the end of this time A began to ferment, and the thermometer marked a distinct elevation of temperature. On the second day A was in full fermentation, and its temperature was 2·7 deg. above B and C. This disturbance continued for five days, the temperature ranging from two to three degrees above the companion bottles. The disturbance then subsided, and the temperature fell to an equality with B and C, and a considerable sediment, composed of yeast, settled at the bottom. In the meanwhile B showed little altera tion; but on the sixth day it began to ferment, the temperature went up, and for more than a week its thermometer stood about two degrees above A and C. Finally, the temperature in B declined, the disturbance subsided, and the newly-formed yeast settled to the bottom of the vessel.

The fever in a bottle resembled small-pox in the following points:—A period of incubation intervened between inoculation and the commencement of disturbance; then followed a period of disturbance accompanied by elevation of temperature; this was succeeded by a subsidence of the disturbance and a return to the normal state. Great multiplication of the infective material (or yeast) took place during the process, and after its conclusion the liquid was protected from further infection with the same contagium. We likewise notice that the contagium of fermentation, like that of small-pox, may take effect either by direct purposive inoculation or by fortuitous infection through the atmosphere. In both cases the infective material has the power of preserving its activity for an indefinite period. The comparison fails in at least one important point—in the fermented urine sugar is replaced by alcohol and carbonic acid, but we are not aware that any pronounced chemical changes occur in the blood or tissues during the attack of small-pox. I would, moreover, carefully guard myself against being supposed to suggest that the enhanced temperature in the fermenting urine is a real analogue of the preternatural heat of fever.

Let us direct your attention to another example—a kind of partial decomposition or fermentation which takes place in boiled hay-infusion when it is inoculated with the *Bacillus subtilis*. The *Bacillus subtilis* is a very common bacterium, found in vegetable infusions and in curdling milk. I hope you will take note of this little organism; for I shall have to refer to it more than once in the course of this address. I took a flask containing hay-infusion which had been sterilised by boiling, and inoculated it with a drop of fluid swarming with *Bacillus subtilis*. After the lapse of twenty-four hours the previously transparent infusion became turbid. This turbidity increased, and on the second day a film or crust formed on the surface of the infusion. On the third and subsequent days, the crust broke up, and fell in pieces to the bottom of the vessel. In about a fortnight the turbidity passed away, and the origional transparency of the infusion was now a sediment consisting of the spores of the little organism at the bottom of the flask. In this case, again, there was the same succession of events—a period of incubation, followed by a period of disturbance, succeeded by a period of subsidence, and, finally, restoration to the normal state. There was also great increase of the infective material and immunity from further attack by the same contagium.

The yeast-plant and the *Bacillus subtilis* may be taken as representatives of a large class of organisms, in regard to which we are only beginning to realise their vast importance in the economy of Nature and in the life of man. They are as I shall presently show, the essential agents in all fermentations, decompositions, and putrefactions. We may group them together, for the convenience of description, under the general designation of *saprophytes*—a term intended to include, under one heading, all the organisms associated with the decomposition and decay of organic matter. The yeast-plant and its allies, and all the numerous species and varieties of bacteria, belong to this group. In size and form, they are among the smallest and simplest of living things, but their vital endowments are wonderful.

All the organisms hitherto found associated with infective inflamations and contagious fever belong to the tribe of bacteria, and we cannot advantageously enter on a study of that association without a knowledge of the origin and attributes of these organisms. This brings us into a field of active controversy. It has been alleged, as you know, on high authority, that these organisms, under certain conditions, depart entirely from the universal law of generation, which is expressed in the aphorism *omne vivum è vivo*, and that they may arise spontaneously by a process of abiogenesis. It is also alleged that these organisms are not the actual agents of decomposition, but are merely associated with that process as secondary or accidental accompaniments, I propose to lay before you evidence that both these allegations are unsustainable, and to prove that bacteria, like other organisms, arise from pre-existing parent gems, and in no other way, and that they are the actual agents in all decomposition and putrefaction.

The first proposition I shall endeavour to establish is this: that organic matter has no inherent power of generating bacteria, and no inherent power of passing into decomposition.

I have placed before you samples of three sets of preparation, out of a large number in my possession, which serve to substantiate this proposition.

The first set consists of organic liquids and mixtures which have been rendered sterile by a sufficiently prolonged application of the heat of boiling

water. They are composed of infusions of vegetable and animal substances, fragments of meat, fish, albumen, and vegetables floating in water. They are contained in oblong glass bulbs, and are protected from the dust of the air by a plug of cotton wool inserted into the necks of the bulbs, but freely open to its gaseous elements, which pass in and out through the cotton-wool. They are all, as you see, perfectly transparent and unchanged, though most of them have been in my possession for several years.

The second set consists of organic liquids which have been simply filtered under pressure through unglazed earthenware into sterilised flasks. They include acid and neutralised urine, albuminous urine, diluted blood, infusions of meat and of hay. As these preparations were obtained by a method which is in some respects new, I will describe it to you. A piece of common tobacco-pipe, about six inches long, served as the filter. This was secured by india-rubber piping to the exit-tube of one of the little flasks used by chemists for fractional distillation. The flask is first charged with distilled water, and then a tight plug of cotton-wool is inserted into its neck. The flask is next set a-boiling briskly over a lamp. The steam rushes throngh the cotton-wool plug and through the tobacco-pipe, clearing both these passages of any germs they might contain. When the water has nearly boiled away, the end of the tobacco-pipe is hermetically sealed with melted sealing-wax. After a little more boiling the flame is withdrawn, and the neck of the flask is instantly closed with a tight vulcanite cork. The apparatus is now ready for action, and the tobacco-pipe is immersed in the liquid to be filtered. When the flask cools, a vacuum is created within it, and this serves as a soliciting force to draw the liquid through the earthenware into the flask. The process of filtration is very slow: it takes two or three days to charge the flask. When a sufficiency has come over, the apparatus is removed and placed on a shelf for a few days, until the pressure inside and outside the flask is equalised. The vulcanite cork is then withdrawn, and the exit-tube is separated and sealed in the flame of a lamp. In this way you obtain a sterilised flask charged with the filtered organic liquid, and protected from outside contamination by a plug of cotton-wool. Preparations obtained in this way, if due precautions have been used in the manipulation, remain permanently unchanged; organisms do not appear in them, and decomposition does not ensue.

The third set of preparations are in some respects the most significant of the three. They consist of organic liquids which have been simply removed from the interior of the living body, and transferred, without extraneous contamination, into purified glass vessels. I will not detain you with the methods employed to obtain them; it is sufficient to say that, by the use of proper precautions, it is possible to convey blood, pus, urine, ascitic fluid, pleuritic effusion, blister serum, or the contents of an egg into sterilised glass vessels without contact with any infecting agency. Preparations thus obtained are exhibited in these flasks; they are protected from air-dust by a simple covering of cotton-wool. All of them are absolutely free from organisms and from any signs of decomposition.

What meaning can we attach to these preparations? You all know that liquids and mixtures such as these speedily decompose, and swarm with organisms, when left to themselves exposed to the air. They are of the most varied composition, and the most apt of all known substances to breed bacteria and to become decomposed. They have been exposed to the most favourable conditions in regard to warmth, moisture, and air. Many of them have been in my possession several years, and all of them for several months, yet they are wholly barren and without sign of decomposition. I venture to say that these preparations substantiate in a most positive manner the proposition with which we started, namely, *that organic matter has no inherent power of generating bacteria, and no inherent power of passing into decomposition.*

A second proposition is likewise established by these preparations, namely, *that bacteria are the actual agents of decomposition.*

In all the preparations, the absence of bacteria coincides with the absence of decomposition. If I were to cause bacteria to appear in them, either by purposive infection or by exposing them to the unfiltered air, decomposition would infallibly follow. The filtration experiments supply a new and telling argument on this point. Some of the liquids became decomposed and full of bacteria while the filtration was going on, but the part which came over into the flasks remained without further change, showing that decomposition cannot go on without the actual contact of the living organisms.

We have next to ask ourselves, What are the sources and what is the nature of the fecundating influence which causes organic liquids, when abandoned to themselves without protection, to become peopled with organisms? In regard to their source, the answer is not doubtful. If I remove the covering of cotton-wool from any of these preparations, and admit unfiltered air, or a few drops of any ordinary water, however pure, or anything that has been in contact with air or water, organisms make their appearance infallibly in a few hours. As to the nature of the infective agents, we can say positively that they must consist of solid particles, otherwise they could not be separated by filtration through cotton-wool and porous earthenware. Is it not a most natural inference that they are the parent germs of the brood which springs up at their impact? They are, however, so minute that

we cannot identify them as such under the microscope; but Professor Tyndall has demonstrated that air which is optically pure—that is, air which is free from particles—has no fecundating power.

It is contended in some quarters that these particles are not living germs of any sort, but simply particles of albuminoid matter in a state of change which, when they fall into an organic liquid, communicate to it their own molecular movement, like particles of a soluble ferment, and so produce decomposition, which, in its turn, provides the conditions necessary for the abiogenic generation of bacteria. Filtration through porous earthenware furnishes a complete answer to this theory; for I found on trial that the soluble ferments passed with ease through the porous earthenware. If, therefore, this theory were true, the filtered liquids, if already commencing to be decomposed, would go on decomposing, and would develope bacteria after infiltration; but instead of that they remained unchanged and barren. We are absolutely driven to the conclusion that these particles are living terms: no other hypothesis squares in the least degree with the facts of the case.

* * * * *

We now approach the more practical side of our subject—that which concerns us as practitioners of medicine and students of pathology. I have already directed your attention to the analogy between the action of an organized ferment and a contagious fever. The analogy is probably real, in so far, at least, that it leads us to the inference that contagium, like a ferment, is something that is alive. We know of nothing in all our experience that exhibits the phenomena of growth and self-propagation except a thing possessed of life.

This living something can only be one of two things; either it is an independent organism (a parasite) multiplying within the body or on its surface, or it is a morbid cell or mass of protoplasm detached from the diseased body and engrafted on the healthy body. Possibly, both these conceptions may have their application in the explanation of different types of infective diseases. In regard to the latter conception, however—the graft theory—which has been so ably developed by my friend Dr. Ross, I will only say that it has not, as yet, emerged from the region of pure speculation. It lacks an established instance or prototype; and it fails to account for the long enduring dormant vitality so characteristic of many contagia, which conforms so exactly with the persistent latent vitality of seeds or spores, but which contrasts strongly with the fugitive vitality of detached protoplasm.

If, then, the doctrine of a contagium vivum be true, we are almost forced to the conclusion that a contagium consists (at least, in the immense majority of cases) of an independent organism or parasite, and it is in this sense alone that I shall consider the doctrine.

It is no part of my purpose, even if I had the time, to give an account of the present state of knowledge on this question in regard to every contagious disease. My object is to establish the doctrine as a true doctrine—to produce evidence that it is undoubtedly true in regard to some infective inflammations and some contagious fevers. In an argument of this kind it is of capital importance to get hold of an authentic instance, because it is more than probable—looking to the general analogy between them—that all infective diseases conform in some fashion to one fundamental type. If septic bacteria are the cause of septicæmia—if the spirilla are the cause of relapsing fever—if the *Bacillus anthracis* is the cause of splenic fever—the inference is almost irresistible that other analogous organisms are the cause of other infective inflammations and of other specific fevers.

I shall confine my observations to the three diseases just named—septicæmia, relapsing fever, and splenic fever—merely remarking that, in regard to vaccinia, small-pox, sheep-pox, diphtheria, erysipelas, and glanders, the virus of these has been proved to consist of minute particles having the character of micrococci; and that, in regard to typhus, scarlet fever, measles, and the rest of the contagious fevers, their connection with pathogenic organisms is as yet a matter of pure inference.

SEPTICÆMIA.—We will first inquire how it stands with this doctrine in regard to traumatic septicæmia and pyæmia. You are all aware that foul, ill-conditioned wounds are attended with severe, often fatal, symptoms, consisting essentially of fever of a remittent type, tending to run on the formation of embolic inflammations and secondary abscesses.

The notion that septicæmia is produced by bacteria, and the *rationale* of the antiseptic treatment which is based thereupon, is founded on the following series of considerations.

1. It is known that decomposing animal substances—blood, muscle, and pus—develope at an early stage of the process a virulent poison, which, when injected into the body of an animal, produces symptoms similar to those of clinical septicæmia. This poison is evidently not itself an organism; it is soluble, or at least, diffusible in water, and it is capable, by appropriate means, of being separated from the decomposing liquid and its contained organisms. When thus isolated it behaves like any other chemical poison; its effects are proportionate to the dose, and it has not the least power of self-multiplication in the body. To this substance Dr. Burdon-Sanderson has given the appropriate name of pyrogen. It is the only known substance which produces a simple uncomplicated paroxysm of fever—beginning with a rigor, followed by a rise of temperature, and ending, if the dose be not too large, in defervescence and recovery.

2. We know further, from the evidence I have laid before you, that decomposition cannot take

place without bacteria, and that bacteria are never produced spontaneously, but originate invariably from germs derived from the surrounding media. We are warranted by analogy in regarding pyrogen. as the product of a special fermentation taking place in decomposing albuminoid mixtures, but we cannot name the particular organism nor the particular albuminoid compound which are mutually engaged in the process.

3. In the third place, we know that when a wound becomes unhealthy, as surgeons term it, the discharges become offensive—in other words, decomposed—and when examined under the microscope they are found to swarm with organisms resembling those found in all decomposing fluids. Meanwhile the patient becomes feverish, and suffers from the train of symptoms which we call septicæmia.

It is a natural inference that what takes place in decomposing blood or muscle in the laboratory takes place also in the serous discharges and dead tissues of the wound. These become infected from the surrounding air, or from the water used in the dressings, with septic organisms; on that follows decomposition and the production of the septic poison, or pyrogen; the poison is absorbed into the blood, and septicæmia ensues.

It was the distinguished merit of Lister to perceive that these considerations pointed to a means of preventing septicæmia. He argued that if you could prevent the access of septic organisms to the wound, or destroy them there, you would prevent decomposition, prevent the production of the septic poison, and thus obviate the danger of septicæmia. It is not within the scope of this address to describe the means by which Lister attained this object, still less to pass judgment on his practice, but I may be permitted to express my belief that the principle on which the treatment is founded is unassailable.

We should probably differ less about the antiseptic treatment if we took a broader view of its principle. We are apt to confound the principle of the treatment with Lister's method of carrying it out. The essence of the principle, it appears to me, is not exactly to protect the wound from the septic organisms, but *to defend the patient against the septic poison.* Defined in this way, I believe that every successful method of treating wounds will be found to conform to the antiseptic principle, and that herein lies the secret of the favourable results of modes of treatment which at first sight appear to be in contradiction to the antiseptic principle. Take, for example, the open method of treating wounds which is sometimes compared in its results with Lister's method. What is this treatment but another way (only less ideally perfect than Lister's) of defending the patient against the septic poison? Because, if the surgeon succeeds in providing such free exit for the discharges that there is no lodgment of them in the wound, either they pass out of it before there is time for the production of the septic poison, or if any be produced, it escapes so quickly that there is not enough absorbed to provoke an appreciable toxic effect.

Before we can understand the pathology of septicæmia we must have clear ideas on the relation of septic bacteria to our bodies. We see in old laboratories that dead animal tissues, when exposed to ordinary air or ordinary water, invariably breed septic organisms; in other words contact of the septic germs with the dead tissues never fails to produce successful septic inoculation. But it is quite otherwise with the same tissues when alive and forming part of our bodies. You cannot successfully inoculate the healthy tissues with septic bacteria. It has been proved over and over again that these organisms, when separated from the decomposing medium in which they grow, can be injected in quantity into the blood or tissues of a healthy animal, or applied to a sore on its skin, without producing the least effect. The healthy living tissues are an unsuitable soil for them; they cannot grow in it; or, to put it in another way, ordinary septic bacteria are not parasitic on the living tissues.

This fact is of fundamental importance in the discussion of the pathology of septicæmia. We have a familiar illustration of its truth in the now common practice of subcutaneous injection. Every time you make a subcutaneous injection you inject septic germs into the tissues. I had the curiosity to test this point with the morphia solution used for this purpose in the Manchester Infirmary. I injected five drops of this solution into four flasks of sterilised beef-tea which had remained unchanged in my room for several months, taking care to avoid any other source of contamination. In forty-eight hours they were all in full putrefaction. But we know that no such effect follows when similar injections are made into the bodies of our patients.

It seems also probable that septic organisms enter constantly into our bodies with the air we breathe and the food we take; they pass, presumably, like any other minute particles, through the open mouths of the lymphatics and lacteals, and penetrate some distance into these channels; they certainly come in contact with the accidental cuts, sores, and scratches which so often bedeck our skins. Notwithstanding all this, our bodies do not decompose; indeed, if ordinary septic organisms could breed in the living tissues as they do in the same tissues when dead, animal life would be impossible, every living creature would infallibly perish. How these organisms are disposed of when they do enter our bodies accidentally, as it were, in the various ways I have suggested, we cannot say; we can only suppose that they must speedily perish, for we find no traces of them in the healthy blood and healthy tissues. (*a*)

Bearing in mind, then, that ordinary septic or-

ganisms cannot breed in living tissues, unless, at least, they are reduced to near the moribund state; bearing also in mind that there is a sharp distinction to be drawn between the septic poison and the organisms which generate it, we are in a better position to consider the course of events in a wound, which leads on to septicæmia and pyæmia. What probably takes place is this: An unprotected wound receives infection from the septic organisms of the surrounding media. If the discharges are retained in the sinuosities of the wound, decomposition of them sets in with production of the septic poison. This is absorbed into the blood, a toxic effect follows and septicæmia is established. As this effect increases with the continuous absorption of the poison, the vitality of the system is progressively lowered, and especially the vitality of the tissues bordering the wound, which may be topically affected by the poison which percolates through them. These tissues at length become moribund or die outright; the septic organisms then invade and breed in them, more septic poison is produced and absorbed; the toxæmia becomes intense, embolic centres of inflammation and suppuration are formed and the end comes. In all this history there is no necessity to assume, or even a probability, that septic organisms invade, or at least multiply in, the blood. They may do so at the near approach of death, but scarcely before that period.

In the course of traumatic septicæmia there sometimes occurs an event of great importance which imparts a new feature to the disease; I mean *infectiveness*. How this arises is a matter of speculation. To me it appears probable that, under a certain condition of occurrence of conditions in and about the wound, a modification takes place in the vital endowments of the septic organism, whereby is acquires a parasitic habit, which enables it to breed in tissues of degraded vitality or even in the healthy tissues, and in this way to produce the infective endemic pyæmia which we sometimes witness in the wards of our large hospitals.† I shall develop this idea more fully bye and bye.

Before leaving the subject of septicæmia, I may allude to the possibility of wounds being infected with septic organisms from within. As a rare occurrence, I am inclined to think that this is possible, and that it may account for the occasional alleged infection of protected wounds. From an observation by Chauvea, it may be inferred that septic organisms, when injected directly into the blood, are able to survive for two or three days, although unable to breed there. ‡ It is conceivable that occasionally a septic germ entering the body in some of the ways which have been suggested may escape destruction and pass into the blood and lurk there awhile, and finding by chance some dead tissue or liquid within its reach, may multiply therein and produce septic effects. Such a contingency, if it ever occur, must be very rare, and would not appreciably detract from the value of the antiseptic mode of dressing wounds.

† Such a modification or "variation" might be correlated with a modification of the ferment action, whereby a more virulent septic poison is produced. Would not such a view explain the sudden intensification of the infecting virus which was found by Chauveau and Dr. Sanderson in their experiments on infective inflammation?

‡ *Comptes Rendus*, 1873, p. 1092.

RELAPSING FEVER.—In 1872, Dr. Obermeier, of Berlin, discovered minute spiral organisms (spirilla) in the blood of patients suffering from relapsing fever, This discovery has been fully confirmed by subsequent observations. The organisms are found during the paroxysms; they disappear at the crisis; and are absent during the apyrexial periods.

The drawings represent the various appearances presented by these little parasites. They consist of spiral fibrils of the most extreme tenuity, varying in length from two to six times the breadth of a blood corpuscle. In the fresh state they move about actively in the blood. They have not been detected in any of the fluids or secretions of the body except the blood, nor in any other disease than relapsing fever. In form and botanical characters they are almost identical with the *Spirochaete plicatilis* of Ehrenberg, (*Spirillum* of Dujardin), a species of bacteria found in dirty water and occasionally in the mucus of the mouth. Cohn designated the variety found in the blood *S. Obermeiri*, in honour of its discoverer.

In the beginning of the current year, Dr. Heydenreich (*e*) of St. Petersburg, published an elaborate monograph on this subject, which, I think, goes far to reconcile the conflicting statements and opinions put forth by previous writers in regard to the connection of the spirilla with relapsing fever. It is based on forty-six cases; these cases were studied with the most minute care; the blood was examined, and the temperature observed from two to six times each day. Altogether, over a thousand examinations of the blood were made.

Relapsing fever still prevails extensively in certain districts of Germany and Russia, but it is almost a forgotten disease in this country; and probably the majority of those in this room have never seen a case. It will, therefore, not be amiss if I remind my hearers, and myself, of its principal features. It is a contagious epidemic fever, characterized by a sharp paroxysm of pyrexia, which lasts about a week, and ends with a severe critical sweating. This is succeeded by an intermission, also of about a week, during which the patient is apyrexial; then follows a second paroxysm, or relapse, which lasts four or five days, and ends, as before, in a critical sweating. Recovery usually follows the second paroxysm, but not unfrequently a third paroxysm occurs, and sometimes a fourth.

The paroxysms are occasionally broken by re-

missions or pseudo-crises; and the apyrexial periods are sometimes interrupted by slight temporary rises of temperature.

Bearing these charactersistics in mind, we shall be able to understand the significance of Heydenreich's observations. He found that every rise of temperature, whether that of the true paroxysm, or that following a pseudo-crisis, or those occurring during the intermissions, was invariably preceded by the appearance of spirilla in the blood. They disappeared shortly before the crises, and remained absent during the deferescence and the subsequent apyrexial periods. During the whole of the main paroxysms spirilla were usually to be found in the blood, but their number varied in the most puzzling manner from day to day. One day they were abundant, the next day they were scanty, and the day after they were again abundant; they even varied at different hours of the same day; some times they vanished altogether for a time, and then reappeared in vast numbers a few hours later. Throughout these variations the temperature remained steadily high, or with only slight and moderate oscillations.

These discrepancies had been observed by previous inquirers, and had led some to doubt, whether the spirilla had anything to do with the virus of relapsing fever; but a happy idea suggested itself to Hydenreich which seems capable of explaining them.

He found that when a little blood containing spirilla was abstracted from the patient and kept at the ordinary temperature of the room, the organisms lived in it for several days; but if the blood was placed in an incubator and maintained at the normal temperature of the body, they died in from twelve to twenty hours, and if the temperature was kept up to fever heat (104 deg. F.) their life was still shorter; they only survived from four to twelve hours. This led him to the conjecture that during the main paroxysm, not one, but several successive generations of spirilla were born and died before their final disappearance at the crisis. He surmised that in the usual course, the broods would overlap each other more or less, the new brood making its appearance before the last survivors of the old brood had passed away. This explained the variable number of spirilla found on different days and different hours of the same day. Sometimes the old brood would have altogether perished before the new brood reached maturity; this explained the occasional temporary absence of spirilla from the blood; it also explained the remissions of pseudo-crises sometimes observed in the course of the paroxysms. So precise was the correspondence found to be between the appearance of the spirilla and a subsequent rise of temperature, that Heydenreich was able to predict with certainty, during the apyrexial periods, the approaching advent of a transient rise of temperature from the reappearance of spirilla in the blood, although at the time the patient presented no other indication of what was about to happen.

If these obsèrvations are to be relied on—and they appear to have been made with the most scrupulous care—we are led to the conclusion that the spirilla are the actual virus of relapsing fever.

The same conclusion is also strongly indicated by the results of inoculation experiments. Relapsing fever is easily communicated to a healthy person by inoculation with the blood of a patient suffering from the disease. Experiments made in Russia on individuals who voluntarily submitted themselves to this practice, show that the blood is only infective during the paroxysms, but not at the crises or during the apyrexial periods. None of the fluids or secretions of the body except the blood are infective. All this shows that the virus is intimately associated with the spirilla, and is absent or present in exactly the same circumstances as the latter.

The occasionally observed vanishing and re-appearance of the spirilla during the paroxysms, without a possibility of new infection, seems to indicate that when the spirilla disappear they leave behind them something in the nature of seed or spores, from which the new brood spring forth. Ocular evidence of such germs is, however, still wanting. Several observers have noticed minute particles in the blood of relapsing fever which might pass for spores, and Heydenreich observed that some of the spirilla had a dotted appearance. But hitherto all efforts to cultivate the spores out of the body have failed, and their power of developing spores is more an inference than a demonstration.

Splenic Fever.—The first trustworthy observation of the presence of organic forms in the infective disease was made in splenic fever. This formidable disorder attacks sheep, cows, and horses, and is not unfrequently fatal to man. In 1855, Pollender discovered minute staff-shaped bacteria in the blood of splenic fever. This discovery was confirmed in a very extensive series of researches by Brauell, and has been corroborated by Davaine and other inquirers in France.

The bacterium of splenic fever is a short, straight, motionless rod, about as long as the breadth of a blood-corpuscle, and so far as is known, it exists in no other form in the living body. It is found, besides the blood, in the spleen, in the lymphatic glands, and in some other tissues. That this organism is the true virus of splenic fever, has long been probable: and the labours of Davaine, Bollinger, Tiegel, Klebs, and, most of all, of Koch, have removed the last doubts on the subject. The work done by Koch is not only valuable as a triumphant demonstration of a disputed pathological question, but is noteworthy as a model of patient, ingenious, and exact pathological research.

We have come across an example of scientific prescience on the part of two distinguished men which is worth notice. It had been remarked by several observers that the contagium of splenic fever, as it existed in the blood, was comparatively short-lived and fugitive, but that, under some unexplained circumstances, the contagium was very persistent, and lurked for years in stables, and other places where cattle were kept. Dr. Burdon Sanderson, writing in 1874, inferred from the circumstance that the organisms of splenic fevers must have two states of existence; namely, that of the perishable bacteria found in the blood and some other more permanent form, like seeds or spores, in which they were capable of surviving for an indefinite period. In like manner, Professor Cohn, guided by the botanical characters of the rods found in the blood, classed them in that group of bacteria name by him *Bacillus;* and as he had observed that all the *Bacilli* produced spores, he inferred that the *Bacillus anthracis*—for so he named the bacterium of splenic fever—would also be found to produce spores. These previsions were proved by the researches of Koch to be perfectly exact.

* * * * * *

The laws of variation seems to apply in a curiously exact manner to many of the phenomena of contagious diseases. One of these laws is the tendency of a variation, once produced, to become permanent and to be transmitted ever after with perfect exactness from parent to offspring; another and controlling law is the tendency of a variation, after persisting a certain time, to revert once more (under altered conditions) to the original type. The sporting of the nectarine from the peach is known to many horticulturists. A peach-tree, after producing thousands and thousands of peach-buds, will, as a rare event and at rare intervals, produce a bud and branch which ever after bear only nectarines; and, conversely, a nectarine at long intervals, and as a rare event, will produce a branch which bears only peaches ever after. Does not this remind us of the occasional apparent sporting of diphtheria from scarlet fever? My friend Dr. Ransome, who has paid so much attention to the laws governing the spread of epidemics, relates the following instance:—A general outbreak of scarlet fever occurred at a large public school. One of the masters who took the infection exhibited diphtheritic patches on the throat. This patient was sent to his own home in Bowdon. Six days after his arrival, his mother was attacked, not with scarlet fever, but with diptheria; though there were no cases of diptheria at the time, neither at the school nor in Bowden. (*a*)

(*a*) Complex cases of mingled scarlet fever and diphtheria are sometimes seen. Similarly the peach-tree will occasionally, among a multitude of ordinary fruit, produce one fruit of which one-half has the peach character and the other half nectarine character.—DARWIN.

Take another illustration: cholera suddenly breaks out in some remote district in India, and spreads from that centre over half the globe. In three or four seasons the epidemic dies away and ceases altogether from among men. A few years later it reappears and spreads again, and disappears as before. Does not this look as if the cholera virus were an occasional sport from some Indian saprophyte, which by variation has acquired a parasitic habit, and, having run through countless generations, either dies out or reverts again to its original type? Similarly, typhoid fever might be explained as due to a variation from some common saprophyte of our stagnant pools or sewers, which, under certain conditions of its own surrounding, or certain conditions within the human body, acquires a parasitic habit. Having acquired this habit, it becomes a contagious virus, which is transmitted with its new habit through a certain number of generations; but finally, these conditions ceasing, it reverts again to its original non-parasitic type.

In regard to some contagia, such as small-pox and scarlet fever, it might be said that the variation was a very rare one, but also a very permanent one, with little or no tendency to reversion; while others, like erysipelas and typhoid fever, were frequent sports, with a more decided tendency to reversion to the original type. In regard to some pathogenic organisms, it might be assumed that the parent type had disappeared, and the parasitic variety only remained—just as the wild parents of many of our cultivated flowers and vegetables have disappeared, leaving behind them only their altered descendants.

How aptly, too, this view explains what used to be called the "Epidemic Constitution," and the hybrid forms and subqarieties of eruptive and other fevers.

I must not pursue this yein further. I have said enough to indicate that this conception enables us—if it does nothing else—to have coherent ideas about the origin and the spread of zymotic diseases.

In applying the doctrine of pathogenic organisms—or *pathophytes*, as they might be termed—to the explanation of the phenomena of infective diseases, we must be on our guard against hard-and-fast lines of interpretation. So far as our very limited knowledge now extends, the pathophytes hitherto discovered all belong to that group of the fungi which are called bacteria. Now, fungi have two marked characteristics, namely, the tendency to assume the parasitic habit, and the possession by some of them of a special ferment action. Both these characteristics may bear a part in the action of pathogenic organisms. In the complex phenomena of septicæmia such would appear to be the case—a poisonous ferment-product first intoxicates the system, and then the organisms themselves prey upon the dead or moribund tissues.

There is, as Dr. B. Sanderson has pointed out, a marked distinction to be drawn between those common processes of infective inflammation which are shared in by animals generally—such as septo-pyæmia, erysipelas, and the diphtheritic process—and those specific contagia which are strictly confined, like ordinary parasites, to particular species. There is nothing in all nature more wonderful than the intimate and subtle nexus which unites a parasite to its host. A hundred examples might be given. Even different varieties or races of the same species have different and exclusive parasites. It would seem as if this nexus depended on some delicate shade—*a nuance*—something like an odour, or a savour, or a colour, rather than on differences of structure or chemical composition. The same minute correlation is seen in specific contagia—all are strictly confined to one or a few species. Vaccinia is confined to man, the horse, and the cow; scarlet fever is confined to man, and perhaps the swine; most of our specific diseases are absolutely confined to man. The human and bovine small-pox, although so wonderfully similar, are not intercommunicable. I am, therefore, inclined to believe that, in regard to specific contagia, we shall find more guiding analogies in parasitism than in fermentation. Our information at present is, however, so defective that it is not wise to enter into further speculations on this subject.

Gentlemen, I have brought my task to a conclusion. I believe that the doctrine of a contagium vivum is established on a solid foundation; and that the principle it involves, if firmly grasped in capable hands, will prove a powerful instrument of future discoveries. And let no man doubt that such discoveries will lead to incalculable benefits to the human race: our business in life is to do battle with disease, and we may rest assured that the more we know of our enemy the more successfully we shall be able to combat him.—*Medical Press and Circular.*

SURGERY PAST AND PRESENT. (*a*)

BY T. SPENCER WELLS, F.R.C.S.E.

The author commenced his address by tracing the progress of the science from the Elizabethan age to the present time. He contended that the science of surgery had in the period mentioned advanced as much as any other art or science; great as those advances had been, and considering how the advances might be further carried on, he drew attention to the subject of anæsthesia and anæsthetics. He reminded his hearers of the anæsthetics at present in vogue, and remarked that in 1872 he made known his opinion that all the advantages of anæsthesia, with fewer drawbacks, could be obtained by the use of bichloride of methyline or chloromethyl than by any other known anæsthetic. It was the result of an experience of five years and of 350 serious operations. The experience of the five succeeding years, with more than 600 additional cases of ovariotomy, and many other cases of surgical operation, had fully confirmed him in that belief. Perhaps they were hardly aware how much the public expected from them in this matter. Deaths from chloroform were alarmingly frequent, yet no substitute for it had found universal or even general acceptance in this country; and he was not speaking too strongly if he said it was the duty of the Association at once, without any unnecessary delay, to satisfy the public that all that was possible was being done to discover the means by which anæsthesia, effectual now, might be rendered safe for the future. A certain section of the community, well meaning it might be, but led astray by thoughtless enthusiasts or self-interested itinerant lecturers, vehemently asserted that if medical men were to perfect themselves in these or in other modes of saving human life or lessening human suffering, they must only do so by practice upon the human subject; they must not, as a surgeon or a physiologist, take the life of a dog or a cat, a rabbit or a sheep, a pigeon or a frog, for any scientific purpose, or with the object of benefitting the human race. Anybody might slaughter oxen and sheep by thousands for human food in any way he pleased, oysters might be eaten alive—the pheasant or the partridge, the fox or the deer might be expressely reared to supply the sportsman with exercise or the amusement of killing; in a word, the lower animals might be devoted to the use of man for any purpose that was not scientific. But if a surgeon experimentally sacrificed half a dozen dogs or rabbits in the hope of improving some operation which might prevent the loss of human life or lessen human suffering, he was branded as inhuman, and barely escaped the supervision of the police. Possibly some of those benevolent individuals would voluntarily offer up themselves to the committee on transfusion, in the hope of perfecting the practice. Until they did so, they would perhaps be a little less clamorous if a few sheep or rabbits were used in the cause of humanity. With regard to splenotomy, pancreotomy, and nephrotomy, accident had proved that the spleen, or the pancreas, or a kidney might be lost without great injury to the human being. Surgeons had removed wounded pancreas and enlarged spleens, and a diseased kidney had been extirpated on two occasions at least, but the operative proceedings were still imperfect. Were surgeons to be allowed to excise the spleen or a kidney of a dog or a rat, or would zealous members of some anti-vivisection society enrol themselves as candi-

(*a*) Abstract of an address delivered in the Surgical Section, (*Brit. Med. Association*), at Manchester. August 9th, 1877.

dates for that immortality which was gained by anyone who immolated himself upon the altar of science? It would be false modesty if he were not to say boldly before the Association that he was proud of the share which British surgeons had had, and of the share which he himself had had in placing ovariotomy upon the roll of successful surgical operations. Great leaders among them, Simpson and Syme, Stromeyer and Billroth, Velpeau and Nélaton, had shown a generous appreciation of their work. And could they imagine a greater pleasure to a surgeon than to hear the president of the Medical and Chirurgical Society speak of his improvements in the operation of ovariotomy as "one of the greatest achievements of surgery in this century, and the influence for good extended through every department of operative surgery?" While at the same society in 1850, Lawrence had asked whether this operation "can be encouraged or continued without danger to the character of the profession?" less than a quarter of a century after that denunciation Lord Selborne publicly stated the result of a calculation, that by his (Mr. Wells's) first 500 operations he had added something like 10,000 years to the lives of European women.

What number of operations had been done by other surgeons he knew not, but supposing that the same probability of the duration of life applied to the women who have recovered from operations he had done since the results of his 500 cases were published in 1872, the gain would be about 18,000 years, and this by one surgeon alone, and by an operation which only thirty years ago was denounced as so fearful "in its nature, often so immediately fatal in its results," that, whenever performed, "a fundamental principle of medical morality is outraged." When German princes practise surgery, and a brother of an English Earl, a Cabinet Minister, was met with as a practising physician, they might think less of the admission of members of their profession into royal and noble families, and look with more hope for recognition by the Government of services rendered by medicine and surgery to the nation. They would not then have to notice anything so disheartening to a learned profession as the fact, that while for the affair of Magdala Lord Napier was honoured by a title and rewarded with a pension, the extended average duration of life of the whole population, and its actual increase, due to sanitary and medical science, and far exceeding in importance the annexation of a province, or even of a kingdom, had earned for Simon the barren right, shared by many less honourably known men, of putting the magic letters C.B. after his name, and William Farr still remained without any mark of national gratitude. Why should a baronetcy be the highest titular distinction conferred upon members of their profession? Was Jenner or Paget less worthy of a life-peerage than anyone of the eminent men who now sit on the bench of bishops—or any of the lawyers, soldiers, or sailors who had been rewarded by hereditary peerage? None of their leaders had time for electioneering or the turmoil of party struggles in the House of Commons; whereas many of them were well fitted for the more dignified position, and would be quite able to devote their time and energy to sanitary legislation in the Senate.

If, in the 40 years since the Association was founded, the great progress which he had so hastily and imperfectly endeavoured to review had been made, what might they not augur for it in years to come? The Association had its early struggles, and had passed through them. The history of the past and the study of the present, alike helped them to look forward with hope and trust to the future. He further urged the importance, or rather the absolute necessity, that the surgeons of the future must be educated gentlemen; that schemes of education should be so ordered as to bring into the profession, as far as possible young men who had had the advantage of the highest general culture to be obtained by any English education. Until this was secured the flower of the University youth would still choose the church or the bar, the army or the navy, or some branch of the Civil Service of the State, where they at once took an enviable social position as members of an honourable profession, and where a successful career might lead to a seat in the House of Lords, to the pensions and tithes freely granted to the fortunate soldier or sailor, and more sparingly, to the meritorious Civil servant of the Crown. It was rather surprising that without any of those inducements, and in spite of the taint of trade forced upon the profession by the powers of the Apothecaries' Company, and its continued alliance with their colleges and universities, they still had abundant evidence of a rapid rise of the profession in the social scale.—*Med. Press & Circular.*

THE LOCAL TREATMENT OF PSORIASIS, as recommended by Auspitz *(Allg. Med. Cent-Zig.)*, differs decidedly from the scraping recommended by the junior Hebra and Bardenhever, for their plan is almost always followed by relapses. The best results, he claims, have been obtained from brisk frictions with fine sand, followed by the local application of liq. ferri sesquichlor.

The Renewal of Prescriptions in Germany has recently been forbidden by law, except on the order of the physician originating the prescription, whenever it shall contain powerful medicines, such as drastics, emmenagogues, emetics or opiates.

INVERSION OF THE UTERUS; RECOVERY.

Inversion of the uterus is a lesion sufficiently rare to justify the publication of every case, however simple. The grave nature of the injury and the dangers both immediate and remote attending it, the fact that it may occur without attracting the notice of the physician, and that even when attention is called to it there may be failure to recognise its character and take immediate steps for relief, are good reasons why every physician, in obstetric practice at least, should be familiar with its signs and symptoms. That acquaintance with the accident is not general, the number of cases of unreduced inverted uteri related in current obstetric literature makes sufficiently evident. Cases are recorded varying in duration from a few hours to fifteen years,—Dr. White (Buffalo) relating one which was reduced by him after that lapse of time. Fortunately, however, this is exceptional, and relief is usually sought and obtained within a few weeks or months from the time of the injury.

The difficulty of returning the organ to its normal position is sometimes very great, and we may all draw courage from the fact that the most eminent men in American gynæcology have devoted hours at a time, and sometimes performed repeated operations before finally succeeding.

The methods of reduction usually resorted to may be briefly sketched here. By the first, the patient being etherized and placed upon her back with her legs drawn up, the uterus is grasped by the hand with the fingers extended, and lateral compression is exercised upon the organ, the vagina being first placed upon the stretch. By applying steady and continued pressure the uterus is thus pushed upward and backward, the part last inverted being first reduced. In the second or so-called "dimpling" process, by pressure upon the most dependent part of the fundus, the portion of the uterus first inverted is first pushed up. A third process, which may be termed a modification of the second, is suggested by Dr. Noeggerath, namely to apply pressure to each cornu of the uterus, and so effect reduction in that way. In cases of long standing it may even be necessary to open the abdominal cavity and distend the cervix before replacement is possible. Various modifications of the above measures may be required in special cases, to which no allusion is necessary in a paper of this character. I desire to refer to a most interesting and instructive article on this subject in the *American Journal of Obstetrics*,* by Dr. Thomas, of New York, and to the writings of Drs. Emmet, Wooster, and others on the same.

Dr. Thomas's differential diagnosis between complete inversion and fibroid polypi is so clear and conclusive that I take the liberty of quoting it here in full:—

If it be a polypus,—(1.) The probe will pass by its side into the uterus. (2.) Conjoined manipulation will reveal the uterine body. (3.) Rectal touch will reveal the uterus. (4) Recto-vesical exploration will reveal the uterus. (5.) The pedicle will usually be small. If it be inversion,—(1.) The probe and finger will be arrested at the neck. (2.) Conjoined manipulation will reveal the ring where the body should be. (3.) Rectal touch will not discover the uterus. (4.) Recto-vesical exploration will not discover the uterus. (5.) The pedicle will be large.

The following case illustrates some of the most frequent symptoms resulting from inversion:—Mrs. H., aged twenty-five years, American, in good health until present illness; married three years, and mother of two children. Nursed first child until it was thirteen months old. Second child was born May 7, 1876. Labour of only three hours' duration terminated naturally. During labour she took ergot, and was urged to make undue exertion by the attending physician. The child was very large. Delivery of the placenta followed in a few minutes and was not hastened by traction on the cord or by introduction of the hand into the vagina. Is not aware of suffering any severe shock at the time. Continued to feel weak during seven days, and at the end of that time noticed that "her womb came down" while straining at stool, appearing outside of vulva. She "put it back" herself and sent for her physician. He, it appears, did not recognize the nature of the difficulty. She had retention of the urine for the week following. Two weeks later the uterus again appeared externally. She remained in bed for two weeks after the birth of her child and was up at the time of the second prolapse. Hæmorrhage constant from the time of delivery until visited by me eleven weeks afterwards, and she had been confined to her bed, except at short intervals, during the whole period. So far, the patient's statement. Her physician considered the case to be one of polypus of unusual character, and postponed operative measures until her health improved.

When first seen she was very much enfeebled by loss of blood and complained of a feeling of weight and dragging about the back and loins. Vaginal examination revealed a tumor filling the vagina and appearing just inside the vulva, somewhat pyramidal in shape, of firm consistence, white color, and having much the appearance of a fibroid. It did not, however, have the stony hardness of the latter. The finger passed high up could be swept around the cul-de-sac, and the diagnosis could be made with tolerable confidence. The rectum was distended by fæces, preventing a complete examination. Next day was appointed for attempting re-

* Volume iii., page 423.

duction. An interview with the former physician and some looking up of the subject impaired my confidence in the diagnosis, and began to make me fancy it might be a fibroid polypus. I suppose many of us experience similar doubts in cases where absolute certainty does not exist. Dr. Fitz kindly saw her with me next day, and the rectum having been thoroughly evacuated and a thorough examination made possible, a correct diagnosis was easily made.

The patient was etherized by Dr. W. A. Dunn, and having been placed upon her back the first method was followed. The uterus was grasped firmly by the hand, the vagina put upon the stretch and steady pressure was made obliquely upwards and backwards in the axis of the pelvis, lateral compression being made at the same time, with the end to reduce first the part of the uterus inverted last. After ten minutes' continuous effort without apparently effecting anything, my hand became fatigued and Dr. Fitz took hold. After the expiration of another ten minutes the organ began to diminish in size and to return to its normal position, so that when I again resumed the completion was a matter of only a few moments. There was none of the snap of spontaneous return mentioned in the books in this case; the fingers were not only obliged to follow the fundus and push it into place, but to remain in utero until the cervix began to contract. External manipulation hastened this, and within half an hour the organ was fairly contracted. There was very slight hæmorrhage during the operation, none of any consequence after. The patient was kept in bed for a week and then allowed to sit up. Nothing important occurred afterward; there was a lame back and a sense of soreness in the right iliac region, but no pain or leucorrhœa. There also remained for some time more or less vertigo, referable to excessive loss of blood, which time and tonic treatment wholly removed.—*Boston Medical Journal.*

DEATH FROM CHLOROFORM AVERTED BY THE INHALATION OF NITRITE OF AMYL.

We have received from a physician, (*Brit. Med. Journal*), the following interesting report for publication. On the 29th instant, I was asked by a professional friend to administer chloroform to a patient of his, from whom he was about to remove a fatty tumour, situated in the left lumbar region. The patient in question was about forty-nine years of age, married, the mother of several children, of thin spare habit, but otherwise in good health. She was nervous, and apprehensive of the result, entreating me not to give her too much chloroform. Having previously examined the heart and found all the sounds normal, I gave her about two teaspoonfuls of brandy undiluted; and after waiting a few minutes, and placing her in the recumbent posture, I commenced the administration. The chloroform I used was Duncan and Flockhart's, upon the purity of which we can always depend. I poured a measured drachm upon a piece of lint, enveloped in a towel. I held it some little distance from her mouth and nose, and let her inhale slowly. My friend noted her pulse, whilst I carefully watched the respiration. The first dose did not produce any effect, and I then used another drachm, which soon caused a good deal of excitement, incoherent talking, and struggling—the patient striving several times to snatch the inhaler from my hand. This gradually subsided, and she appeared to be passing into the third stage of anæsthesia, when she made an abortive attempt to vomit, raised her head from the pillow, and, to my friend's great alarm, the pulse flickered and stopped altogether; she gave a gasp; foam gathered on her lips; her jaw became rigid; and to all appearance she was dead. I immediately withdrew the chloroform; my friend dashed some cold water on her face and pulled her tongue forward, whilst I commenced artificial respiration, after Marshal Hall's method, but without success. We then poured some nitrite of amyl on lint, and held it to her nostrils. In such emergencies, it is impossible to judge the flight of time correctly; but I should say in ten seconds there was a flushing of the face, the pulse was again felt, and, to our great joy, the all-important function of respiration was again restored; the woman being rescued apparently from the very article of death. After a time, the anæsthesia seeming tolerably profound, my friend proceeded to remove the tumour, which he did in a rapid and skilful manner, whilst, as the patient grew restless, I gave an occasional whiff of chloroform. It proved to be an ordinary fatty tumour. Only one small vessel required to be ligatured. The wound has since healed rapidly, and the patient has made a good recovery. In looking at the order of symptoms, I cannot help forming the opinion that, had it not been for the nitrite of amyl, this poor patient would assuredly have died. I have never seen, either in surgical or obstetrical practice, any one in such imminent peril. I am thankful to say I have never witnessed a case of death from chloroform; but, from the accounts published in the medical journals, both I and my friend inferred that, in the present instance, there was syncope arising from paralysis of the heart, and that this was met by the nitrite of amyl, which, in accordance with its physiological effects, gave a direct fillip to the arrested circulation.

MILK TAVERNS.—The establishment of milk taverns is now strenuously advocated in many places, as supplementary to the temperance movement.

TREATMENT OF FRACTURE OF THE PATELLA.

All who have had much experience in the treatment of transverse fracture of the patella must have found the different methods recommended in the text-books inefficient and unsatisfactory to both surgeon and patient. Having treated a considerable number of cases by the most approved appliances with no better results than those obtained by "position" alone, I had concluded to relieve my patients of the annoyance of straps, bandages, and the like, and myself of the trouble of applying them, and to trust to simple treatment by position.

Upon hearing good reports of the method recommended by Dr. Sanborn, of Lowell, I gave it a trial, but found that the twisted plaster over the patella caused pain and excoriation of the skin; that the plaster was drawn into a string for some distance above and below the patella, and that the skin was dragged into a great fold, while the fragments were but little if at all acted upon. To obviate these objections I modified the appliance as described below: a tinsmith was employed to bend a piece of No. 13 wire to the shape and to surround one side with a tin roller like that of a common harness buckle; to this was sewed one end of a strip of plaster two and one half inches wide and about a foot long; the plaster was then applied to the thigh, with the wire exactly over the upper extremity of the upper fragment. A similar strip of plaster was applied to the leg below the lower fragment, to which a strip of strong cotton cloth, about a yard long, had been sewed; a strip of plaster around the limb and splint, above and below the patella, served to secure the limb to the splint and to hold the ends of the other plasters down against the broken bone. The end of the cloth being passed around the pulley and drawn upon, the fragments were held together with the greatest ease and with comfort to the patient. The end of the strip of cloth was then split in two and tied around the end of the foot piece of the splint in a bow-knot. This was quite as efficient as a weight would be, and much more convenient. The smooth cloth, passing over the broken bone, caused no pain and prevented tilting; the circulation was not interfered with, and easy control over the fragments was maintained.

I have now treated three cases in this way, with excellent results and with comfort to the patients. It is important that the plaster should be of good quality.—*Dr. Galloupe in Moston Bed. Journal.*

[The weight and pully might also be used with this contrivance.]—Ed.

The British Parliament appropriates $10,000 a year to scientific investigations into the causes and processes of disease.

POPLITEAL ANEURISM CURED BY THE APPLICATION OF ESMARCH'S BANDAGE FOR FIFTY MINUTES.

Michael M.——, aged thirty-six, a grocer, was admitted into Mr. Tyrrell's ward at the Mater Eisericordiæ, Dublin, on the 20th of April, with an aneurism of the left popliteal artery. He stated that up to the preceding March he had enjoyed good health, except for a short time in September, 1872. when he had a slight attack of rheumatism. He had been in America for a year, and while there was very intemperate.

On the 10th of March, when kneeling, he was seized with a most violent stinging pain in the back of his left knee. He stood up at once, and the pain ceased until he went to bed, when it returned with increased violence. The pain continued during the night, to disappear again in the morning. On examination he noticed a small hardish lump in his left arm, but did not feel it throbbing. For about a month after this he continued quite well, except for a dull pain in the left arm which attacked him on and off.

On the 8th of April, as he was returning home from a long walk, he was again attacked with a most violent racking pain, and the lump, which had up to this date been slowly increasing in size, now increased rapidly, and commenced to throb. He painted it with tincture of iodine, and rested for some days; but, not finding himself getting better, he sent for Dr. White. That gentleman, at once recognizing the nature of the disease, sent him to Mr. Tyrrell. There was no history of syphilis.

On examination, a large pulsating tumour was felt and seen in the left popliteal space, measuring five inches from above downwards, and five inches and a half from side to side. It was soft, and a slight bruit was audible with the stethoscope over it. The superficial veins of the leg were swollen, and the whole limb was slightly œdematous. Neither the anterior nor the posterior tibial arteries could be felt on the left side but were palpable on the right. The circumference of the left knee immediately above the patella was fourteen inches, on the right side twelve inches and a half; half an inch below the patella on left side fifteen inches, on the right side eleven inches. The tumour was principally in the inferior portion of the popliteal space. The heart sounds were normal. He required large doses of morphia to give ease from the violent pains, shooting from the toes to the hip, which came on at night. He was ordered to remain in bed, and to take immediately a full saline cathartic draught. He was put on a restricted meat diet, got very little to drink, and was allowed ice and oranges to allay his thirst. He had a subcutaneous injection of morphia at night.

On the 24th of April Mr. Tyrell applied Esmarch's bandage. Commencing at the toes, the bandage was wound tightly round the limb as high as the tumour, then lightly over it, and again up the thigh. The elastic tourniquet was also put on. The patient complained of considerable pain while the bandage remained on, but it was not so severe as to call for the use of an anæsthetic. Mr. Tyrrell allowed the bandage to remain on fifty minutes. On its removal all pain ceased. The tumour had sensibly diminished in size, was quite hard and globular, and had a very slight pulsation. Digital compression was kept up for two hours. When examined at the expiration of that time the tumour was found absolutely pulseless. As a matter of precaution a compressor was applied over the femoral artery at the pubes, and the patient was directed to keep it moderately tight. After the elastic bandage was taken off, the leg and thigh were enveloped in a flannel bandage and elevated on pillows.

On the 25th April, the patient, having slept all night, said he was free from pain, but complained of numbness in the toes and foot. The articular arteries around the knee could be both seen and felt to pulsate. In the evening pulsation was felt in the anterior tibial on the dorsum of the foot. The tumour felt very solid; no trace of pulsation. Next day the patient was better in every respect; the œdema of the leg was nearly gone, and sensation was normal in the foot. He slept well, and the tumour was apparently smaller. On May 1st the patient got up and dressed himself, and was anxious to be allowed to walk about, but Mr. Tyrrell would not allow this, as he thought it more prudent to rest the leg for some time longer. Ordered a pair of crutches. On May 2d the patient went home.—*Lancet*, June 30, 1877.

RECOVERY FROM A WOUND PERFORATING THE STOMACH.

In the *Aerztliches Intelligenz-Blatt* for December 26, 1876, Dr. Brand, of Fussen, records the following case. He was sent for on the 22nd of July to see a boy, aged five years, who was said to have fallen down, and received a wound in the abdomen, from which something was hanging out. On arrival he found that the boy had fallen from a table to the floor with an earthen *pot de chambre*, and had cut himself with one of the pieces of the broken vessel. His father drew the broken piece from the wound. This was soon after supper, and his stomach must have been pretty full at the time. On examination, a somewhat jagged wound was found on the left side of the abdomen in the lower part of the epigastric region, one and a quarter inches from the median line. The wound itself was almost vertical, and about one and three-quarter inches long. Some great omentum protruded from it. The boy vomited whilst the necessary questions were asked, and part of the stomach, about the size of an apple—about two and three-quarter inches in diameter—was gradually forced out of the wound. In this there was a "solution of contiuity" of three-fifths of an inch in length, which allowed food to escape from the stomach. During the vomiting, Dr. Brand kept up gentle pressure on the abdominal walls, then carefully cleansed the extruded part, ligatured a small spirting artery, united the stomach-wound—peritoneum to peritoneum—with a stitch, the end of which, with the ligatures, he brought out at the external wound. Two sutures, passing through the peritoneum, closed the external wound, after careful cleansing. Strips of plaster were also applied. The very patient little sufferer was much exhausted. His skin was cool; his pulse 108. He was put to bed, iced compresses applied to the wound, small doses of opium ordered, and ice to be sucked to relieve thirst. Next day his pulse was 92; temperature almost normal. He felt pretty comfortable. There was slight redness round the wound. In the next few days there was some abdominal tenderness, but not distension: and gradually, with very moderate febrile symptoms, a circumscribed abscess formed from which, after removal of the stitches, on the sixth day, a considerable quantity of good thick pus escaped. At the same time gentle traction removed the suture and ligature belonging to the stomach-wound. All bad symptoms vanished from this date, though some pus was discharged until the 9th of August, when the external wound cicatrized. On August 21st the boy was brought again with a swelling in the old site. Pressure caused a small quantity of pus and *a caraway seed* to escape from the distended cicatrix. Three days afterwards, the wound again healed. After a year, the boy was seen again in good health, not suffering the least from the accident, and it appeared that the stomach was firmly attached to the abdominal wall. The slight nature of the symptoms all through is very remarkable.—*London Medical Record.*

SALICINE EOR CHILLS.—Dr. Thompson reports, in *British Medical Journal*, a number of cases showing the superior effacacy of salicine in the treatment of intermittents. Cases wherein quinine had utterly failed were promptly relieved with this agent. He used large doses, grs. xxx every two hours. Usually the fourth dose was sufficient to break up the chain of morbid action, after which a few doses at regular intervals completed the cure. It may be given when the chill is on, and will usually shorten the chill, and greatly mitigate or even arrest the febrile exacerbation.

ABSCESS OF THE LIVER.—In the *Practitioner* for the current month, there is a good practical paper on this subject, by Sir J. Fayrer, K.C.S.I., M.D., in which the author draws attention to the insidious manner in which these abscesses are often developed. As a rule, the early symptoms of suppuration are those of congestion, with bulging of the side, either between or below the ribs, with chills or well marked rigors, high temperature and sweating; but sometimes none of these symptoms are well pronounced, and yet an abscess may have formed and escape detection until the bulging and fluctuation, or until the sudden evacuation of its contents through the bowels, the lung, or stomach, or into the peritoneum reveals the true state of matters. Several cases are quoted in illustration of the insidious invasion of this affection, while attention is also drawn to the fact, not so generally understood, that a man may have an abscess of the liver, which is not evacuated, and yet recover after its removal by absorption, or by its remaining in a state of quiescence for the remainder of his life.

With regard to the vexed question of the priority of hepatic abscess, or of dysentery, in those cases where these affections occur together, Sir J. Fayrer, is inclined to regard them as independent of each other, though often co-existent, and due to the same climatic causes.

As to the treatment of liver abscess, the author advises at the outset local depletion by leeches on the side, when the symptoms are acute, the pain great, and the fever high. Also free purgation by mercurials, salines, and ipecacuanha, with hot fomentations, rest, and a light diet. When it is obvious that pus is formed, the evacuation of the matter must be favoured by such channels as may seem most favourable. The strength must be supported, and irritation allayed; and when the abscess is sufficiently near the surface to justify exploration or puncture, it should be evacuated.—*Med. Press and Circular.*

Reports of Societies.

CANADA MEDICAL ASSOCIATION.

FIRST DAY'S PROCEEDINGS.

The tenth annual meeting of this Association was held on the 12th and 13th ult., in Montreal, the President, Dr. Hingston, in the chair. There was a large attendance from all parts of the Dominion. The following gentlemen were present as delegates from medical societies in the United States: Dr. Kimball, of Lowell, Mass., Dr. Wing, of Boston; Drs. Brodie and McDonald, Detroit, and Dr. Adams, and were invited among others to seats on the platform.

Dr. DAVID, the Secretary, read the minutes of the last annual meeting, which were approved.

A large number of new members were duly proposed, and admitted as members of the Association.

Letters of apology were read from absent members of the Association.

The President then read the annual address which showed deep research and a close acquaintance with the subjects treated upon.* After acknowledging tersely the compliment paid him in calling him to preside over the convention, he said, that much as had been done by the Association, since its formation in Quebec ten years ago, all the advantages hoped for by its founders had not yet been realized, although sufficient had been done to show every member that a greater degree of energy pervading and agitating the whole would have led to the achievement of a greater degree of success. Notwithstanding difficulties arising from social and geographical conditions, much good had been done. It had been the custom at the opening addresses before Societies in Europe—notably so in Great Britain—to take up some department of the healing art, or some master or explorer that had passed away; but in an association like that he addressed, limited time did not admit of discussing abstract questions of historic interest. Thus they were confined to those politic-medical questions which concerned them most. He denied the insinuation that the Association had no objects sufficient for the existence worthy the labor, expense and time of meeting together, insisting that this was the opinion of the ill-informed, who failed to perceive its advantages. Alluding to the growth of the Medical Association of our "American cousins," he (Dr. Hingston) said that although now after an existence of only thirty years found to be almost too large for practical purposes, the society must be admitted to have accomplished an amount of good not to be achieved by any other means. It had brought the medical profession of the United States into one body and encouraged the State institutions, thereby improving the tone in them. So with the association he addressed, which had existed for only one-third of that period. Legislation had imposed geographical boundaries and endeavored to make a fit practitioner of one Province disqualified in another. The association defied all efforts to fix limits as of a boundary, and rubbed out those unsightly enclosures. It was matter for gratification that the work of the session would be divided into sections—surgery and medicine—the other branches of the healing art to be

* The following extracts are taken chiefly from the Montreal *Gazette.*

subdivided in these sections. After alluding to matters of routine, he touched upon the question of legislation in the Province of Quebec, where three bills went in last session to satisfy three orders of mind, and came out as one bill, and in a shape that satisfied no order of mind. The Province of Ontario system—a central Examining Board—had been favorably pronounced upon by the medical press and profession of that Province. The Province of Quebec had no such system; yet nothing short of it would satisfy those who looked only to the well-being of the profession and the community. The compulsion, requiring persons licensed in one part of the Dominion to procure license in another, seemed an anomaly; it was one, however that could only be remedied by a parity of medical legislation in the several Provinces. Much more liberal was the action of the English College of Physicians in Great Britain, which had passed a by-law legalizing even foreign practitioners in England, and on certain conditions exempting them from re-examination. It appeared to him the duty of the Canadian Association to endeavor to obtain such legislation as would lead to a like generous action. It was useless to speak of medical legislation for the whole Dominion, but local legislation could easily introduce measures simultaneously so that a practitioner in one could be a practitioner in all the Provinces. This could be done by central examining boards and a uniform system. In drawing attention to the act as at present existing, he showed that by the manipulation of proxies one active man might control matters at any time for the whole Province, making practitioners in the country and towns, unknown to themselves, his instruments in so doing. Having called attention to the refusal of the British Board of Trade to recognize Canadian qualifications for emigrant and passenger ships, so recently before the public, he explained that although the Board of Trade had rescinded the order, it was nevertheless a law, to be used by the British authorities at any time. The diplomas were not recognized, but their holders were allowed to be employed. And how could Canadians ask for the recognition of their diplomas in Britain while they refused to do so in their own country. Alluding to the ungenerous act of a member of the profession in Ontario towards a surgeon of distinction from Detroit, he was certain that his associates in convention would allow him to interpret their views in assuring Dr. Jenks, and through him the members of the profession in the adjoining Union, of their honest offered courtesy, and of their continued desire for reciprocity in matters which even governments cannot control, and in which science and humanity demanded the most unfettered civility.

Coming from the question of the education and qualifications of a medical student before entering upon the practice of his profession, to the question, what should be his qualifications on entering our medical schools? he said the education he would advocate should give a delicate taste, a candid, equitable, dispassionate mind, a noble and courteous bearing in the conduct of life; should open the mind, correct, refine, enable it to master, know and digest, rule and use its knowledge, and give it power over its own faculties, application, flexibility, method critical exactness, sagacity, resource, address. With the intellect thus tutored, the student might enter into the study of that most difficult profession of which we are members and pursue with advantage a particular course of study that might issue in some definite and perhaps remunerative work. He shared not with those who advocated a low utilitarianism, but rather with those who think the student should be formed "not by a parsimonious admeasurement of studies to some definite future object, but by taking a wide and liberal compass, and thinking a great deal on many subjects with no better end in view, perhaps, than because the exercise is one which made them more rational and intelligent beings." But this was not what had been thrust upon them recently in an ill-digested law relating to their profession, in an important Province of this Dominion, where our colleges and seminaries of learning have been degraded from their position. The graduate in arts, the student who had completed his eight or nine years curriculum at any of our colleges should by that fact alone be qualified to enter upon the study of medicine. But no, our universities may grant degrees in arts, but the colleges and affiliated medical schools override them and subject the candidate to a new ordeal, from which he should be exempt. In the days of Samuel Johnston the physician was admitted to be the most cultivated and learned in any society. Could this be said to-day of many countries in the world—of Canada? There were cases, and notably Ireland, where the physician is still among the best educated gentlemen, and his social standard regulated accordingly. Dr. Stokes in a conversation had with him (Dr. Hingston) in 1867, explained this by saying: "Nearly all our graduates in medicine are graduates in arts. Of the last 98, all had degrees in arts." In some other countries the same condition of things obtains. Continuing on this theme, he discriminated in favor of a *liberal* as in contradistinction to a *crammed* education. They must be above their knowledge, not under it. It was with medicine as with politics. There were two classes of those—one versed in the science and art of government, and capable of an abstract view of the contentions of parties—the other a mere transcript or copy of the last editorial in the journal of his party, and unequal to methodically arranging or digesting facts. To which class should the guidance of the affairs of the country be entrusted? He could easily anticipate their answer. It was a question of far more moment than party which the

physician was called to consider—the health and life of the people—and if the cultivation of the intellect was necessary when men were content to observe and base practice on observation, how much more necessary was it now when the most acute logical minds are sorely puzzled between what are scientific truths and bold and reckless assumptions? Here he remarked that this is unquestionably the age of bold, reckless—he had almost said impudent—assumption in matters of science. While it was generally conceded that "our ideas of the intrinsic elements that constitute beings in the physical as well as in the moral order are very limited and imperfect," they boldly assume the mutual dependence of things upon each other when we could logically establish nothing more than co-existence or succession, as if co-existence or succession necessarily implies connection or relation. He quoted the writings of Huxley and Spencer in proof of his statement. Speaking of synthesis in medicine, he quoted past events and writings of Schenck, of Vienna, and later our own Erasmus Wilson, in support of it, saying that "the tyro in medicine has, or thinks he has, a half dozen remedies for every disease; but as experience is gained, he learns, and with advantage to his patients, to make a fewer number of remedies to suit a much greater number of disorders." He had always thought and the belief was strengthened with his years, that the work of grouping diseases for therapeutic purposes was yet to be done. He treated on the importance of state medicine which should investigate the air breathed, the water drank and all that pertains to our habits as communities—to protect the public health was the duty of state medicine. There could be no more important work than this. The work of educating communities and States was to be done through the people, and to the physician fell the philanthropic though perhaps somewhat thankless task. The conviction was gaining ground that a Board of Health should be established for the Dominion, for the Provinces, and for the Municipalities,—one to each. He went into this question at considerable length, enforcing earnestly upon his hearers their duty and that of their successors in the education of public opinion to a better knowledge of the principles of health as the means for achieving a proper position for state medicine, and passing on, touched upon the union with the American Medical Association, quoted the original resolution passed at Niagara in 1875, alluding to the joint resolution of 1876, in Philadelphia, "That a union of the two Associations into one is desirable," &c., and praising the admirable manner in which Dr. Bowditch, of Boston, had performed his duty at Chicago in June of the present year, and his arguments pro and con, along with his final deduction against the union as inexpedient because of the impossibility in working machinery so unwieldy as that organization would necessarily be. He explained, however, that Canada never asked for union of the two bodies, that the proposition came from the Americans themselves in the first place. What the Canadians did ask for, was "a conference at some central point," so as to become "more intimately acquainted and discuss medical and surgical questions on a common basis." If the Canadian representatives at Philadelphia asked for a "union" of the Associations, they expressed their own views, and did not speak for the Canada Medical Association, which at Niagara in 1875 asked merely for a "medical conference," without either Association losing its identity. Here the questions connected with the birth-rate of countries was taken up. Before concluding his address, by special request he referred to the evil which was prevalent—more particularly in certain states of the adjoining Republic—amongst some classes of the community—the crime of fœticide. He dwelt upon it in its social, moral, legal, religious and scientific aspects, and condemned it in the most unmeasured terms.

The address occupied upwards of an hour in delivery, and was listened to with marked attention. A vote of thanks was moved by Hon. Dr. Parker, seconded by Dr. G. W. Campbell, and tendered to the president for his very able and interesting address.

Dr. Ross, chairman of the committee on "Medicine," read his annual address, and Dr. Howard, chairman of the committee of "Medical Education and Literature," also presented his report.

Dr. HOWARD, seconded by Dr. Bell, moved that the Convention resolve itself into two sections—Medicine and Surgery—to meet for business at two o'clock. Carried.

The President named Hon. Dr. Parker, and Dr. Canniff as chairmen of the respective sections.

Dr. GRANT moved, seconded by Dr. Gibson, that the following gentlemen be named a Committee on Nominations: Drs. Parker, Botsford, Canniff, Workman, Fulton, Sweetland, Fenwick, Osler, F. W. Campbell, Worthington, and Rottot. The meeting then adjourned for an hour.

The members met again at two o'clock, and divided into two sections—medical and surgical.

The following papers were read in the medical section:

Tricuspid Stenosis, by Dr. R. P. Howard, Montreal; treatment of empyema, by Dr. J. Fulton, Toronto; plea of insanity, by Dr. Hornibrook, Mitchell, O.; economical aspects of public sanitation, by Dr. Playter, Toronto.

The following papers were read in the surgical section:

Epithelioma of the eye, by Dr. Alt, Toronto; gastrotomy and ovariotomy, by Dr. Robillard, Montreal; nasal polypus, by Dr. Reeve, Toronto.

Discussion was had upon all the papers, but

want of space compels us to forego publishing any of the remarks.

In the evening the members of the Association and their ladies were entertained by the President, an "at home" having been given in their honor by Mrs. Hingston. It is needless to say that the evening was spent pleasantly.

SECOND DAY'S PROCEEDINGS.

The chair was taken by the President at 10 a. m. The minutes of the previous day's meeting were read and approved. Several new members were elected and took their seats.

It was moved by Dr. Fenwick, and seconded by Dr. Robillard that Sir John Rose, M.D., of Edinburgh, and Dr. Cormick, of Paris, be elected corresponding members. Carried.

Dr. THAYER gave notice that at the next meeting he would make a motion with regard to vaccination and the keeping of heifers from which to obtain pure vaccine for supplying the profession.

The Rt. Hon. Lyon Playfair, M.D., C.B., LL. D., M.P., for the University of Edinburgh, was introduced to the Association by Dr. Hingston, and was requested to take a seat on the platform.

The Rt. Hon. gentleman made a suitable acknowledgement of the honour paid him. Dr. Taylor, of Edinburgh, was also requested to take a seat on the platform.

Dr. FULTON then read the report of the Committee on "Therapeutics and New Remedies." Dr. Botsford next reported on the subject of "Climatology;" and Dr. Osler presented his report on "Necrology."

Dr. WORKMAN, at the request of the Association, read his paper on "Crime and Insanity," in general session. A short and interesting discussion followed the reading of this paper, at the close of which Dr. Hornibrook moved, seconded by Hon. Dr. Parker, "That in the opinion of this Association it is desirable in all criminal trials, when medical opinion suggests the probability of mental unsoundness, the accused should be placed under the supervision of experts for a sufficient time to enable them to determine whether he was insane or not at the time the crime was committed." Carried.

Dr. BOTSFORD moved, seconded by Dr, Reddy, that the thanks of the Association be given to Dr. Workman for his able paper.

Dr. HOWARD gave the following notice of motion: "That it is in the interest of justice that when ante-mortem examinations are to be made, experts familiar with such scientific work should be employed by the Crown when procurable."

The meeting then adjourned.

The meeting of the Sections commenced at 2 p.m.

The following papers were down for reading in the Medical Section:—Addison's Disease, by Dr. Ross; Acetate of lead in post partum and other hemorrhages, by Dr. Workman; Pernicious Anæmia, by Drs. Osler and Bell; Vital Statistics, by A. B. Laroque; Supposed Case of Gummy Tumor of the Brain, by Dr. Proudfoot.

In the Surgical Section, the following papers were on the programme:—Optical Defects, by Dr. Reeve; Vesico-Vaginal Fistula, by Dr. Trenholme; Excision of the Knee, by Dr. Fenwick; Embolism of Central Artery of Retina, by Dr. Buller.

For want of time many of the above papers were not read but handed to the Committee on Publication, and will appear in the volume of Transactions.

The Association convened in General Session in the afternoon. Reports were received from the medical and surgical sections.

Hon. Dr. PARKER called attention to the increase of papers sent in, and the necessity for the session lasting three days instead of two.

A motion to that effect was carried.

Dr. OSLER then read the following report of the committee on nominations:

President, Dr. Workman, of Toronto; Secretary, Dr. David, Montreal; Treasurer, Dr. Robillard, of Montreal.

Vice-Presidents.—Dr. McDonald, of Hamilton; Dr. Worthington, of Sherbrooke, Que.; Dr. Cowie, of Halifax, N. S.; Dr. McLaren, St. John, N.B.

Secretaries.—Dr. Sweetland, of Ottawa; Dr. F. W. Campbell, of Montreal; Dr. John Black, of Halifax, N. S.; Dr. Atherton, of Fredericton.

Committees.—On Publication, re-appointed; on Medicine, Drs. Mullin, of Hamilton, and Ross and Lamarche, of Montreal; on Surgery, Drs. Malloch, of Hamilton, Grassett, of Toronto, and Farrell, of Halifax; on Obstetrics, Drs. Rosebrugh, of Hamilton, U. Ogden, of Toronto, and Trenholme, of Montreal. On Therapeutics—Drs. J. E. Kennedy, of Toronto, A. H. Kollmyer, of Montreal, and Woodhill; on Necrology, Drs. Ridley, of Hamilton, Lachapelle, of Montreal, and Burgess, of London; on Medical Education and Literature, Drs. Reddy, of Hamilton, Michaud, of Kamouraska, and Howard, of Montreal; on Climatology, Drs. Playter, of Toronto, Larocque, of Montreal, and Jennings, of Halifax.

Hamilton was chosen as the next place of meeting, on the second Wednesday in Sept., 1878.

Dr. MULLIN moved the following gentlemen on the Committee of Arrangements, with power to add to their number. Drs. Malloch, McDonald, Ridley, G. McKelcan and the mover, which was carried.

A report of the Auditing Committee showed the receipts for the year to have been $221.33; disbursements, $195.68; balance in hand, $25.65.

It was decided to print the transactions of the Association at an early date, and a subscription was opened for that purpose.

Dr. BELL gave notice that at the next meeting

he would move to so amend the by-laws as to admit members of the profession in British Columbia, Manitoba, and Prince Edward Island.

Votes of thanks were tendered to the Windsor Hotel Company and Railway and Steamboat Companies, to the resident members of the profession; to the Committee of Arrangements; and to the retiring President; after which the meeting adjourned *sine die.*

In the evening the members of the association and friends were entertained at dinner at the City Club, by the Medical Profession of Montreal. Dr. Hingston occupied the chair. and Dr. F. W. Campbell the vice-chair—after full justice had been done to the good things provided, the usual loyal and standard toasts were proposed and responded to. Dr. Howard, in a very able speech, gave the toast of "Our Liberal Professions," which was responded to by Drs. Desjardins and Canniff. "Our Medical Schools," was replied to by Dr. Geo. Campbell, Lamarche, F. W. Campbell and Reeve. The Mayor of Montreal proposed "The Medical Association," responded to by Dr. Workman, the newly elected President. The Chairman then proposed the "Guests of the Evening," eliciting replies from the Right Hon. Dr. Playfair, Drs. Taylor, Brodie, of Detroit; Hon. Dr. Parker, and Dr. Grant. The "Press," was responded to by Drs. Fenwick, Campbell, Zimmerman, Bessy and Mullen, and the "Profession of Montreal," by Dr. Osler. A very pleasant evening was spent by those present.

A most interesting feature of the Association was the exhibition of scientific apparatus of various kinds. Dr. Wilkins exhibited Physiological apparatus, for use in the study of Practical Physiology and Histology, to which subjects he has devoted a great deal of attention, while his vivisections and demonstrations of the circulation in the mesentery and lungs of the frog, were most interesting. He also showed members present the use of the following instruments, and gave social interesting demonstrations. Sanderson's Kymograph for recording tracings of arterial pressure, and other tracings, by means of a canula in the carotid or crural artery of an animal, and connected with the kymograph, the influence of the vagus and other nerves on the circulation can be readily demonstrated. This apparatus has three axles for three different rates of speed.

Marey's Tambour and Lever, for demonstrating the influence of the vagus and other nerves on respiration, by means of a canula in the trachea of an animal, the canula being connected with the tambour by means of rubber tubing—the lever records tracings on the blackened cylinder of Sanderson's Kymograph.

Koenig's Diapason, used for marking minute intervals of time that elapses between the moment of irritation of a muscle and the moment it commences to contract in response to the irritation or stimulation. This instrument measures accurately the 1-200 part of a second. It is really an immense tuning fork which makes two hundred vibrations in a second; these vibrations are recorded by means of a fine piece of steel spring on a blackened cylinder, which revolves on the quickest axle of Sanderson's Kymograph.

Besides the above, various other instruments and apparatus were exhibited such as the Cardiograph, Bernard's knife for the productions of diabetes in the rabbit, by puncturing the floor of the fourth ventricle; Electrodes of various descriptions, moist chambers; Stricker's hot stage, apparatus for artificial respiration in animals, Bernard's dog holder, Czermack's rabbit holder, &c., &c.

Demonstrations under the microscope were shewn of the circulation of the blood in the mesentery of the frog, also the circulation in the lung of the frog; in both these cases the animals were under the influence of curare. The circulation of the lung of the frog is shown by making a slight opening in the thorax of the animal and then with a smallest-size catheter introduced into the larnyx of the animal, the lung is blown out beneath a stage specially made for that purpose.

Dr. Roddick exhibited Dr. Lister's antiseptic apparatus, including the most approved steam atomiser for projecting carbolic spray, the carbolized dressing, &c. He also communicated many new and interesting facts concerning surgical practice in Europe, explaining to the members, among other things the *modus operandi* of the *thermo-cautery*, of Paquelin, which he has imported. This certainly is a beautiful instrument and is destined to supersede electricity, as it is quite as certain in its action, cheaper and more portable than the latter.

During the convention the following houses exhibited very fine displays of new medicinal preparations manufactured by them:

Kenneth Campbell & Co., of Montreal, a firm well known to most of the profession for the reliability and elegance of their pharmaceutical preparations, exhibited a number of samples. Their display of elixirs, syrups and fluid extracts numbering over fifty, of their own manufacture showed to what perfection the art of pharmacy may be carried. Among these we must particularly commend their Elixir of pepsine, Elixir of beef with pepsine, so useful in cases of extreme prostration, as in wasting fevers and consumption. Their syrup of the Iodide of Iron and Quinine also deserves mention. While their sample of Norway Cod Liver Oil, collected and imported by them direct from the Norway coast, is equal to any preparation of this valuable and much used remedy that we have ever seen for purity and excellence.

The establishment of this firm being the largest dispensing house in Canada was an object of inter-

est to many strangers who found it well worthy of a visit, where they were shown all the latest improvements in the pharmaceutical art. At the branch establishment, Phillips' Square, (there being two establishments belonging to the firm) visitors had an opportunity of seeing the new wonder, "The Telephone," in constant use, the two establishments being connected by telegraph for the rapid transmission of messages, orders, and exchange of prescriptions. Among their specialties may be mentioned the new method of administering medicine by way of "wafer capsules," whereby the *most disagreeable medicines* may be readily swallowed by either adult or child.

Messrs. McKesson and Robbins, of New York, exhibited through the firm of Kenneth Campbell & &c., an assortment of 300 varieties of their gelatine coated pills, which are reliable and elegant preparations. These pills are of the spheroidal or capsule shape and it is claimed that in this form they are best adapted for swallowing and obviate the sickening sensation so universal in swallowing the round pill. This house has acquired a high reputation in the United States and Canada, for the reliability, elegance and purity of their preparations.

Messrs. John Wyeth & Bro., of Philadelphia, made a very large and interesting exhibit of very elegant new and useful preparations including the latest idea in pharmacy, namely compressed powders in pills. By this means powders are made to assume the form of small lozenges and are convenient for carriage and easy of administration. Under this form they exhibited pills of arsenic, salicylic acid, podophyllin, bismuth, opium, calomel, quinine, cinchonidia, morphia, phosphorus, pil. cath. co., &c., &c. Their preparations of dialyzed iron, lacto-phosphate of lime with cod-liver oil, elixir of beef iron and wine, syrups, medicated wines, &c., in great variety—displayed a high degree of excellence in the art of pharmacy. Their pharmaceutical preparations are excellently prepared with much skill. The usual nauseous taste of the drugs are greatly disguised and prescriptions which extemporaneously prepared would present an inelegant appearance, are rendered clear and pleasant to the taste, without detracting from their medicinal value, as evidenced in their elixir gentian and tincture of iron, bark, iron and bismuth, valerianate of ammonia, iron, quinine and strychnine, emulsion of cod-liver oil and lime, while the elixir of beef iron and wine is more agreeable to the stomach than beef tea.

The compressed powders or pills can be readily swallowed on account of their flattened shape. The bulk of the powder is considerably reduced by pressure, yet as neither moisture nor excipients are employed, the medicine disintegrates readily in most cases, the most prominent exceptions being the potassium chlorate and ammonium muriate which are purposely compressed with greater force as they are mostly employed for local effect upon the throat, and are convenient for singers and public speakers.

Messrs. W. H. Schieffelin & Co., of New York, made a very interesting exhibit of soluble pills. These pills are coated with a tasteless transparent soluble covering, readily melting away in the mouth. Among the list are pills of phosphorus, quinine, sulphur, morphine, pil. cath. co. and other standard pills. Preparations of remedies in soluble form is a triumph of no mean value in pharmacy.

All the preparations exhibited were of the most perfect character and deserve the attention of physicians in prescribing, for the more agreeable the form in which a medicine is administered, the better pleased will the patient be, and the greater the success of the practitioner.

We were very greatly pleased to observe the rivalry that now obtains between the better class of pharmaceutists in their determination to vie with each other in their endeavour to place at the disposal of the profession, medicines at once elegant, accurate and reliable and withal so palatable that any child or lady may take them without the slightest repugnance. This fact, in itself, will remove one of the great objections of the day to regular practitioners, for there can be no doubt but that the careless, crude, and to many, disgustingly disagreeable way in which so-called Allopathic remedies have been administered in the past has been a great source of weakness, which taken advantage of by Homeopathists has enabled its votaries to obtain a very large army of converts which they could never have gained had such preparations as those exhibited by the pharmaceutists above named been in general use by the profession.

We welcome this *new era* in pharmacy and we thank our pharmaceutists for the displays made, shewing the care and interest taken to second the efforts of professional men by providing the best character possible in medicinal preparations.

The Galvano Faradic Manufacturing Co., of New York, represented by Mr. Reid, exhibited some very powerful and elegantly made electrical apparatus for medical use. The *medical use* of electricity is becoming better understood, and more frequently resorted to of late, and the perfect character of the instruments exhibited by the company leave no room to complain of want of adaptability in the matter of appliances. Their *Pifford Galvano-Cautery* is an elegant and very perfect instrument, in testimony of the practical value of which we can speak from actual observation, having seen it used in a case of *painful urethral carbuncle*, by Mr. Reid, while in Montreal, in the presence of several eminent practitioners.

The Electro-Galvanic Truss is a new idea in truss construction exhibited by the patentee and prop-

prietor, J. R. Alexander, M. D., who claims to have reached at a bound the *ultima thule* of perfection in his trusses. Time will give this its proper status as it has every thing else in the past.

Mr. Gross, of Montreal, exhibited a fine collection of surgical instruments and appliances.

We have thus been at considerable pains to give a full account of the general proceedings with a notice of the several very creditable and expensive exhibits made by large manufacturing establishments, some of these being valued at several thousand dollars, and we trust the attention of the profession being thus drawn to what they have missed by not being present will cause the next convention, in Hamilton, to be more numerously attended by members of the profession.

Medical Items and News.

Singular Source of Lead Poisoning. — A singular instance of lead poisoning, says the *Medical Times and Gazette*, is reported by Dr. Alford, Medical Officer of Health for Taunton, in his last annual report. The disease, as observed by him, was in most cases of a very marked character, the blue line on the gums, the colic, and other symptoms being unmistakable. The first cases that occurred were in an isolated farm-house. Repeated visits and analysis of water, preserves, etc., threw no light whatever on their origin, no lead being found. Then, in quick succession, a large number of fresh cases were reported in various houses, mostly isolated, several of which were very severe. They had all in common, it appeared, sent their corn to be ground at the same mill. Dr. Alford accordingly visited and inspected the mill, and the origin of all the mischief was at once apparent. On having the millstone raised, he found the surface of each stone honeycombed with lead. The millstone being of a loose nature, large spaces had occurred, which of late, during the illness of the owner, had been filled up by pouring in quantities of molten lead. The first grinding of wheat after the "dressing" contained, no doubt, large quantities of the metal. Dr. Alford ordered the lead to be at once removed, but from what he heard this was by no means an uncommon method of repairing millstones. He considered it his duty, therefore, to report the matter fully, in order that the public might be made aware of a dangerous source of poisoning. There were about ten pounds of lead upon the surface of the millstone, and the cavaties were all filled up with the same metal.—(*Ex. Clinic.*)

Ustilago Maidis, by which is meant the smut or "Ergot," of Indian Corn, has been employed for the same purposes as ergot of rye, and with reputed success. Considerable attention is bestowed on it in some quarters.

Bilious Attacks.—Dr. Fothergill (in *Medical Times*) says the treatment of bilious attacks to which dark-complexioned persons of the biliary diathesis are most subject: Rarely do persons of other diathesis and fair persons suffer from those disturbances which may fairly be said to be connected with the presence of bile acids in excess; while as to those forms of biliary disturbance where the urine is laden with lithates, the condition Dr. Murchison calls lithæmia, persons of other diathesis seem equally liable to them, and they are found in fair and dark people alike. For those bilious attacks, then, which occur chiefly in those of the bilious diathesis nothing is so good as alkaline saline purgatives taken in some vegetable infusion immediately on getting out of bed in the morning. This should be washed down with some warm fluid which excites the peristaltic action of the bowels, and, if necessary, a vegetable laxative pill should be taken the night before. After a couple of liquid motions—the more copious the better—the bilious person feels pretty equal to the day's work before him. Rochelle salts with a little sulphate of magnesium in infusion of buchu forms a most excellent morning purge, in my experience. Sir Joseph Fayrer has found in his Indian experience sulphate of magnesium, with quinine or gentian, sufficient to produce two or three loose motions, an efficient measure in biliary congestion.—*Southern Med. Record.*

Trephining the Tympanum with Success for Deafness.—Dr. Bonnafont, the well-known aurist, has just published the particulars of the above case, which had excited much interest here at the time the operation was performed. He trephined the tympanum a year ago in a young girl of twenty, who was suffering from deafness, which nothing could remove. She could hear the ticking of a watch when applied to the skull. The tympanum was perforated by means of a special trocar, and an accompanying cannula, provided with small wings, which could be pushed out *ad libitum*, was left in the tympanum. Restoration of hearing took place instantly. Twenty days after, symptoms of inflammation, swelling, and abscess showed themselves; but as they were confined to the middle and external ear, and as there was no headache or fever, poulticing and injections were ordered, and the cannula was left in its place. A month afterward all these phenomena had disappeared, and the cannula fell out. It was then seen that the hole made by the trocar in the tympanum was perfect and unimpaired. The patient is now quite right and hears well. Dr. Bonnafont thinks that this is a great triumph in aural surgery, and that trephining of the tympanum will take the same rank and render the same service as removal of the cataract in eye surgery.—*Paris Letter to the Lancet*, July 28, 1877.—*The Clinic.*

CHANGES OF THE PUPILS IN CHLOROFORM NARCOSIS.—In the surgical clinic in Göttingen during the past winter, the changes in the pupils during the administration of chloroform were carefully observed in 122 cases. Previous to and during the stage of excitement, the pupils were, in most of the cases, of the usual width; in a few cases, just before the stage of complete insensibility, they were quite wide and sensitive of light. During the stage of complete insensibility they were closely contracted in 120 of the cases, and were absolutely immovable in 119. An instantaneous dilatation of the pupils in this stage was found to be a threatening symptom of chloroform poisoning. This occurred in two of the cases, in one of which the trouble seemed to be located in the heart, and in the other in the lungs; in both, life was restored by pulling forward the jaw and resorting to artificial respiration.

The following practical lesson has been deduced from these observations: When, during the stage of tolerance the pupils begin to dilate slowly, it is a sign that the patient is recovering from the narcosis, and more chloroform must be given; when, on the other hand, the pupils become suddenly widely dilated, the administration of chloroform must be at once stopped, and further trouble guarded against.—*Centralblatt for Chirurgik*, June 23d. (*Medical Record.*)

THE IMPORTANCE OF CINCHO-QUININE AS A REMEDY.—The Supervising General of the Marine Hospital Service has issued a circular letter to the medical officers of that branch of the Treasury in which he calls their attention to the extraordinary increase in the market price of sulphate of quinia, and at the same time alludes to the success attending the employment of the other alkaloids of the bark.

In the year 1866 the Madras Government appointed a Medical Commission to test the respective efficacy In the treatment of fevers of quinine, quinidine, cinchonine, and cinchonidine, and the remedial value of these four alkaloids as deduced from their experiments is shown by the following statement:

Quinidine,	ratio	of	failure	pr	1000	cases,	6
Cinchonidine,	"	"	"	"	"	"	10
Quinine,	"	"	"	"	"	"	7
Cinchonine,	"	"	"	"	"	"	23

Cincho-quinine contains all these alkaloids, and the combination has proved more efficacious than any one alone; and the price of this article being less than one half the present price of sulphate of quinine, the physicians of this country are substituting it for the sulphate. The medical officers of the Government service should give this subject due consideration in preparing their requisitions for medical supplies.—*Washington, D. C., Daily Nation, August* 8, 1877.

A NEW METHOD OF CURING POPLITEAL ANEURISMS.—Dr. Martin Burke, of Bellevue Hospital, reports three cases of popliteal aneurism, that were cured by compression of the femoral artery by means of a conical bag filled with shot, which was suspended from a height in such a way that the apex of the cone pressed on the artery in Scarpa's triangle. In the first case pulsation in the aneurism ceased in eight days; in the second, in sixteen days; and in the third, in six days. The cure was slow in the second case, on account of the patient's neglect to keep the apparatus in place. During the treatment little or no pain or uneasiness was complained of in any of the cases.

The shot-bag was made of canvas, in the form of a flattened cone, the apex measuring one inch in diameter. A rounded piece of cork or India-rubber, one inch in thickness, was fitted accurately into the apex of the cone, and a long thin rod reaching down to and resting on the rubber or cork was then inserted and held in the middle of the cone while the shot was poured around it, until the bag weighed about twelve pounds. A piece of canvas, with a hole in the centre for the passage of the rod, was then stitched over the base of the bag, and a stout wire hook fastened to its centre. The bag was suspended to a pulley in the ceiling by means of a rope, with which it was connected by a piece of rubber tubing and a large-linked chain. The tubing made the apparatus elastic, and the chain enabled the Doctor to regulate more easily the amount of pressure employed.—*New York Medical Journal*, June, 1877.

GOUT SUCCESSFULLY TREATED BY SALICYLIC ACID. — Dr. Ruhe contributes to the *Deutsche Zeitschr. f. pr. Med.* the account of an exceedingly obstinate case of gout, which had resisted all other forms of treatment, but which was promptly relieved by the free administration of salicylic acid. About two and one-half drachms were given during the first twenty-four hours. By the third day the patient was entirely free from pain, and was again able to walk about. His appetite was rapidly regained, and at the time of the report, several months after treatment, no relapse had taken place.—*Allg. Med. Cent. Ztg.*, No. 64, 1877.

A PULSE OF TEN BEATS PER MINUTE is reported in the Paris *Gaz. Medicale.* The case was pernicious algid fever. After several hours at the stated rate, it rose to twenty-five, and continued from twenty to twenty-eight for three days. The patient died.

ESMARCH'S BANDAGE is already losing favor in amputation, owing to frequent excessive capillary hæmorrhage following its use. Surgeons are resuming the old tourniquet.

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science

Issued Promptly on the First of each Month.

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.*

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John N.B.; J. M. BALDWIN, 805 Broadway, New York, and BALLIERE TINDALL & COX, 20 King William street, Strand, London, England

TORONTO, OCT. 1, 1877.

CANADA MEDICAL ASSOCIATION.

The Association held its tenth annual meeting at Montreal, on the 12th and 13th ult., and was presided over by Dr. Hingston, the worthy president, with his usual grace and ability. The meeting surpassed in success and general interest all that have preceded it. The attendance, although not large, made up in quality what it lacked in numbers, for seldom have we seen such an array of distinguished men assembled together, as on this occasion. The Gods seemed to have been propitious for the weather was *Elysian* itself, while from over these as were present the Right Hon. Dr. Lyon Playfair, C.B., and his fellow traveller, Dr. Taylor, of Edinburgh. From the neighbouring Republic were such men as Kimball and Brodie, representatives of the American Medical Association, and from our own fair Dominion we had a goodly array of representative men. The President's Address, an epitome of which will be found in another column, was masterly and exhaustive. To follow him through the various subjects and lines of thought suggested would be a work of supererogation, but there is one or two points to which we desire to draw attention. First, his advocacy of a higher standard of general educational attainments before entering upon the study of the profession, preferring that all should be possessed of a degree in arts, if possible, was in the right direction. It has been too painfully noticeable among many medical students during the past, and among numbers of practitioners that their early training must have been either woefully misdirected or altogether neglected, and hence we have numbers of men in the profession to-day who, in everything aside from mere medical knowledge are as illiterate as ordinary mechanics, indeed, in general attainments many skilled artizans are infinitely their superiors, and yet we have known such men occupying professional chairs in teaching bodies. This ought not to be, and in a profession that is ranked as one of the *learned* professions there should be admitted no literary ignoramuses. A good preliminary training is the surest diciplinary preparation for the study of an exact science, besides affording a vast fund of useful collateral information which is of infinite value to a well instructed practitioner.

Another subject alluded to, viz., the prevention of offspring, is becoming a growing evil among some portions of society, even in Canada, as well as in the bordering States where the evil has assumed alarming proportions. The duties of motherhood are repugnant to many of the respectable (?) women of modern society,—and not alone among the unmarried unfortunates are these evils to be looked for—but also among the middle and upper classes, where too often the husband is quite as intent upon the evil course, out of considerations of false kindness towards the woman, as the woman is herself.

In other matters the address abounded with information and valuable suggestion, and altogether was quite in keeping with the author, the circumstances and the occasion.

In the Medical Section over which Hon, Dr. Parker so ably presided, several very interesting papers were read and discussed. The paper of Dr. Howard on "Tricuspid Stenosis." accompanied by the specimen preparation was most interesting, and the explanation following the discussion cast much light upon what to most practitioners is a very rare and little understood affection. Dr. Hornibrook's paper on the "Plea of Insanity," was thoughtful, clearly defined and interesting. Owing to the importance of the subject, and also as a mark of respect, Dr. Workman's paper on Crime and Insanity was reserved for reading in the general session. It was *the* paper of the Association, and deserves to be widely circulated not only in the medical but also in the popular press, from its valuable information and suggestions respecting the relations between crime and insanity. Its reading was followed by the passing of a resolution in regard to the "plea of insanity," brought forward by Dr. Hornibrook, and amended in the general session. It will be found in our report of proceedings. Dr. Ross's paper on "Addison's

Disease," with illustrations and specimens, excited a good deal of interest, and brought out several new and important facts concerning this rare disease.

The most interesting discussion took place in the Surgical Section, presided over by Dr. Canniff with his usual ability. In this section some of the papers on the programme, for want of time, could not be read; among others, one by Dr. Canniff on the "Treatment of Wounds." A letter was received from Dr. Rosebrugh expressing regret at not being able to be present to read his paper on "Ovariotomy." The paper by Dr. Alt, of Toronto, was brief, but of an unusual degree of interest. Dr. Reeve, of Toronto, was down on the programme for two very interesting and practical papers, one on "Optical Defects," and the other on "Nasal Polypus." Dr. Robillard's paper upon "Gastrotomy and Ovariotomy," in which he exhibited Pean's instruments, used in the operations of ovariotomy and hysterotomy, excited considerable interest and discussion, which brought out the fact that hysterotomy had been performed for the first time in Canada by Dr. Hingson, of Montreal, who frankly admitted, however, that in doing it, he was doing more than he had intended or expected to do. It appeared from the statements of Dr. Kimball the veteran ovariotomist of Lowell, U. S., that Pean not unfrequently commenced ovariotomy by *la petite operation*, but finished with *la grande operation*.

The criticisms on the different papers were sufficiently pungent in this section, but without taking from the interest or value of any, it must be admitted that the kind and sensible criticisms of Dr. Kimball were perhaps the most interesting feature. His voluntary criticisms were lengthy, but even after these were closed, he continued to reply to the questions of various members present. Dr. Kimball seems averse to the operation of hysterotomy, and advises its performance only when intense suffering, with the importunities of the patient and friends, would render it warrantable. Neither did he consider either ovariotomy or hysterotomy as operations to make the reputation of a surgeon, since recovery often follows where least expected, and *vice versa*, failure ofren attends where everything seemed to indicate a reasonable hope of recovery. The addresses, papers, criticisms and illustrations, were appropriate, pointed, pithy, and full of suggestion and instruction, while nothing could have exceeded the enthusiasm with which Dr. Lyon Playfair was received by the Association, or the pleasure and gratification felt by the members in listening to the very suggestive and eloquent address of one of whom they had read and heard so much. He was elected an Honorary Life Member. The public dinner was a grand entertainment, and was largely attended. Everything, in short, passed off in the most satisfactory manner and reflected much credit upon the committee of arrangements, and its active and obliging Secretary. Dr. Osler, of Montreal. We can hardly say, however, that we approve of splitting up the Association into two sections. It is rather premature. It makes the attendance in each section too small, and thus detracts from the interest which would arise from a more extended criticism of the papers read. When the Association numbers by hundreds, it will be time to think of these and other subdivisions.

THE POISON IVY AND ITS REMEDIES.

Poison ivy, *rhus toxicodendron*; poison vine or climbing ivy, *rhus radicans*; poison sumach or swamp sumach, *rhus vernix;* and poison elder, poison dogwood, *rhus venenata;* are all plants of the same family. Their juice, when applied to the skin, has the effect of producing inflammation and vesication; and the same poisonous property is possessed by a volatile principle which escapes from the plant itself, and produces, in certain persons, when they come into its vicinity, an exceedingly troublesome erysipelatous affection, particularly of the face. There is frequently itching and redness, a sense of burning, with tumefaction, vesication, and ultimate desquamation. These effects begin immediately after exposure and usually decline within a week.

The principle of treatment should be based upon the fact that the milky juices of these shrubs are neutralized and made harmless by alkaline washes and these washes may be used as preventives as well as remedies. Our fore-fathers in the profes sion depended upon a light cooling regimen, with saline purgatives, and the local use of cold lead-water. Experience has proven alkaline washes to

be the most reliable remedies, such as a solution of pure carbonate of potassa, or salt of tartar. Carbonate of potash procured from cream of tartar, is preferable to that obtained from pearl-ash in these cases. It should be used of the strength of two ounces to eight ounces of water, and applied to the affected parts several times daily. Strong suds, made from soft or lye soap, white lye, ammonia water—two to three desert-spoonfuls to a a pint of water—or a little saleratus dissolved in water, are excellent washes. White lye is made by throwing two quarts of hardwood ashes into a pail of water, stirring and then allowing it to settle—the clear supernatant liquid is white lye.

When a person is exposed to the influence of these plants, which when bruised or cut, have the power of affecting some skins when several feet distant, although most persons require to touch the plant before it affects them, he should wet every part of the skin that is likely to be exposed or uncovered, with one or another of these washes, allowing the wash to dry upon the skin, by no means wiping it off. This plan is said to protect the skin from the poisonous influence of these plants. In the same manner, if one has been exposed, or fears he has, let him follow the same plan and allow the wash to dry upon the skin.

Where the skin has already become red and swollen, and there is itching and stinging, these lotions should be freely applied by means of cloths wet with them, allowing them to dry upon the skin. Keep the patient cool and quiet, let the diet be spare and cooling, and keep the bowels gently open. Where the skin is very extensively inflamed, and the applications are made too perseveringly, it may happen that metastisis to the bronchial mucous membrane may take place, and great oppression of breathing with urgent sense of suffocation be felt. In such cases the application of mustard over the lungs affords relief. As prevention is always better than cure, persons should shun the immediate neighborhood of these poisonous plants when practicable to do so.

SMOKING ARSENIC IN PHTHISIS PULMONALIS.

It is a notable fact that many of our most important discoveries in medicine have been borrowed or developed from general proverbs or prevailing prejudices of the common people in some district or country. Thus was it with the discovery of vaccination. Sir Wm. Jenner merely deduced an important scientific truth from the vague notions and common prejudice of the dairy people of Gloucestershire, in England, who strenuously held that no one who had ever had sore fingers or hands from catching the cow-pox while milking, ever took the small-pox or could be inoculated. And this was very easily remarked, for this fell disease in those days ravaged and laid waste whole cities and districts of country, destroying its tens of thousands, without any check or relief being afforded from the physicians of the day. In like manner has it been with most of the important remedies of the now extensive materia medica, natives or common peasants in most instances affording the information which, being developed, has led to the discovery and classification of many invaluable agents for the relief of disease.

Following up this line of observation, we find the roving gypsies and horse jockeys of most countries giving arsenic as a remedy for broken wind and heaves in horses, and with astonishing success, improving the general condition of the animal, giving him a fine healthy skin and sleek coat, also removing the difficulty of breathing. The only difficulty with its use was, as they say, that once begun, it must be continued. In these cases it seems to act by stimulating the secretions generally, especially that of the skin, and improving the digestive function. This practice has been found common among the Arabs and wandering Tartars.

The northern Chinese use arsenic daily, mixed with their smoking tobacco. And according to M. Monteguy, formerly French Consul in China, tobacco free from arsenic is not sold among the northern Chinese. The Consul was assured by missionaries who had lived a long time among the natives, that the arsenic-smokers were stout fellows, with lungs like a blacksmith's bellows, and rosy as cherubs." The last statement brings to mind the fact that in Syria, Persia and Arabia, the use of arsenic is indulged in by ladies, desirous of beautifying the complexion and improving the general appearance. It is an ingredient in almost in every cosmetic of the eastern countries.

The publication of M. Monteguy's statements with respect to the Chinese arsenic-smokers, called

forth a letter from a Dr. Loudè, who announced that some years previous in a course of a discussion at the Academy of Medicine, Paris, on the agents to be employed to cure tubercular consumption. He told the assembled doctors that he had found but one successful means of combating the dreadful disease—that means, was the smoking of arsenic. He reaffirmed his commendation of the remedy. Trousseau, than whom few are more eminent, recommends the inhalation of arsenic, by means of cigarettes saturated in a solution containing from ʒss.—ʒj. to the ℥j. of arseniate of soda, in the treatment of phthisis pulmonalis. In weak states of the system, as in the course of phthisis where dropsy of the cellular tissue supervenes, arsenic is found beneficial in removing the anasarca, apparently acting as a tissue stimulant. While not forgetting the dangers of an over dose of thist remedy, we feel from personal observation of its beneficial effects in lung troubles, including phthisis with emaciation, especially bronchial phthisis, spasmodic asthma, bronchitis and catarrhal affections, when smoked in the form of the arsenious acid commingled with a just proportion of stramonium leaves and lobelia, with nitrate of potash to secure combustion, that it cannot be too highly recommended in the treatment of lung affections, when its administration can be regulated by a competent physician.

CONTAGION OF TYPHOID. — At the close of a series of lectures on the laws of health, recently delivered in London by Dr. W. H. Corfield, Professor Tyndall made a few remarks upon the germs of disease. Referring to the action of decomposing animal matter in giving rise to disease, he said that for twenty years he had been in the habit of visiting the upper Alpine valleys, where, among the Swiss chalets, there was the most abominable decomposition constantly going on, and there were also exceedingly bad smells; but in that region such diseases as typhoid fever and small-pox were ordinarily entirely unknown. If, however, a person suffering from typhoid fever were to be taken there, the disease would spread like wildfire from the infected focus, and would run through the whole population. He agreed with the lecturer that the contagion of each of these diseases is unchangeable in its nature, since we never find the virus of one of them producing the other.

THERMOMETERS FIRST USED.— A correspondent sends us the following copy of an advertisement 77 years old, showing that to our grandsires the honor of introducing thermometrical aid in practice of medicine is fairly due, and not to the wiseacres of the present age, as generally believed. The following is a verbatim copy of a notice published in the *Medical and Physical Journal*, January, 1800. MEDICAL THERMOMETERS.—Dr. Currie, in his excellent work on fever, having evinced the great benefit often derived from the affusion of cold water, practitioners in the army and navy, as well as physicians to public institutions, became desirous of availing themselves of the use of a remedy so cheap, pleasant and efficacious. For this purpose it was necessary to ascertain the heat of the body with a degree of precision, for which the hand of the practitioner can seldom be relied on; thermometers were therefore recommended, and we have at length obtained a specimen that appears perfectly satisfactory. The scale is attached to the tube and the whole instrument is contained in a cylindrical case about five inches long, and a quarter of an inch in diameter; therefore sufficiently portable.

As the instrument is designed for the purpose of ascertaining the heat of the human body, its range is very limited in order to obtain the requisite sensibility; it extends from about 80° to 112°, and is so sensible that it will indicate the heat applied to it in less than ten seconds, and the scale may be read to a quarter of a degree. It will be scarcely necessary to caution our readers against immersing it in fluids of a temperature higher than 112°, as it might endanger the instrument.

Gentlemen in the country may be supplied with such thermometers as above described, or with those of more extensive scales, if desired, by Allen and Howard, Chemists, Plough Court, Lombard Street, at about 18 shillings each.

ETHER AS AN ANÆSTHETIC.—It cannot be too often repeated that ether is a much safer anæsthetic than chloroform. The danger of ether is from the side of respiration, that of chloroform from the heart, and this fact explains their relative safety or danger. In chloroform narcosis, the danger is much more sudden; ether gives warning. The former produces syncope, which is sudden and unexpected, the latter asphyxia, which is a slow process, and being plainly visible can be remedied at any moment by admitting air to the lungs.

AMERICAN PHARMACEUTICAL ASSOCIATION.—The 25th annual meeting of this Association, met at the City Hall, Toronto, on the 3rd ult., Mr. Chas. Bullock, President, in the chair.

Several of the manufacturing chemists exhibited their preparations in the Temperance Hall. Powers & Weightman, of Philadelphia, made a most magnificent display of chemicals, covering 180 square feet, and valued at $11,000. Their table extended across the hall, and was flanked by a pyramid of sulphate of quinine weighing over 150 ounces at the one end, and by a pile of sulphate of morphia, weighing over 300 ounces, at the other. Wyeth & Bro., Philadelphia, make a specialty of compressed medicinal powders, (so-called pills) of the United States and British Pharmacopœia. These embrace the principal formulas in use for pills, and are compressed dry in lenticular shape, are porous, and hence disintegrate and dissolve readily. W. H. Schieffelin & Co., New York, showed a complete list of soluble coated pills, prepared according to the United States Pharmacopœia. McKesson & Robbins, New York, showed perfumery, chemicals, and alkaloids, but make a specialty of gelatine coated pills. Of these they make all the varieties of British and United States pharmacopœias. Wm. R. Warner & Co., Philadelphia, showed a large variety of sugar-coated pills, of soft substance and hard coating; also, fluid extracts, and a handsome druggists' shop bottle patented by themselves. Seabury & Johnson, New York, showed a large assortment of medicated, court, and surgeons' plasters. Canada was represented by Wm. Saunders, of London, Ont., who showed a fine lot of fluid extracts.

A conversationè was held in the Normal School in the evening, and was a pleasant affair. Mr. Saunders, of London, was chosen President for the ensuing year, and the place of meeting, Atlanta, Georgia, on the 3rd Tuesday of Sept., 1878.

BRANT COUNTY MEDICAL ASSOCIATION.—At the regular quarterly meeting of this Association held in the Kerby House, Brantford, Sept. 4th., the following gentlemen were elected officers for the ensuing year: Dr. Philip, *President;* Dr. Burt, *Vice-President;* Dr. Harris, *Secretary-Treasurer.*

TORONTO EYE AND EAR INFIRMARY.—Dr. Reeve has resigned his position as surgeon to this Institution.

A WELL DESERVED PUNISHMENT.—At the Court of Queen's Bench held at Sweetsburg recently, Sears, who made an outrageous assault on the liberty and person of Dr. Baigham, of Phillipsburg, Missisquoi, Que., was convicted of robbery. On the pretence of bringing the doctor to see a patient a number of miles away, Sears decoyed him in the middle of the night to his (Sears') house, and there attempted to force him to sign some papers under threats of murder. His Honour Judge Dunkin condemned the prisoner to ten years in the penitentiary for the crime.

HYOSCYAMIN IN INSANITY. — The use of this remedy in the treatment of the insane has been tried by Dr. DeWitt, Medical Superintendent of the Longview Asylum, Ohio, who speaks very highly of its value. He contrasts it with chloral and opium, and says that it has, in addition to the hypnotic effect, a curative action. It appears to be especially indicated in recurrent mania and melancholia with depression. He gives it in doses of one grain of the alkaloid.

DEATH.—It is our melancholy duty to record the death of another young and prominent member of the profession, J. D. Cline, B.A., M.D., house surgeon of the Montreal General Hospital. He was deservedly held in the highest estimation by the profession, and all who knew him. His death resulted from an attack of malignant diphtheria which is now prevalent in Montreal.

CAUSE OF DISEASE.—Sir Henry Thompson says: I have visited rich and poor, high and low, all my life, and I solemnly declare that the great bulk of the diseases with which I have had to deal arose from the drinking of intoxicating liquor. I do not mean what people call drunkenness, but the regular steady customs in which most of us indulge every day of our lives.

ARTIFICIAL EYES.—Between 8,000 and 10,000 artificial human eyes are sold annually in the United States. The average cost of an eye is $10, and the color for an eye most in demand is what is known as "Irish blue." Christian Hohn, a New York German, makes glass eyes for horses that will defy detection by all except accomplished experts.

BEWARE OF GAS.—The last number of the *Lancet* reports the death of a surgeon in Manchester who inhaled gas for the purpose of having teeth extracted. The patient insisted on having the gas given to produce its full effect. When the operation was completed it was found impossible to rouse him. The *post mortem* showed fatty degeneration and valvular disease of the heart.

APPOINTMENTS.—J. Mahaffy, M. D. of Clarksville, to be an Associate Coroner for the County of Simcoe. Dr. Wm. McNaughton Jones has been appointed Medical Superintendent of the British Columbia Insane Asylum. Dr. J. D. Bryant has been appointed lecturer on Anatomy in Bellevue Hospital Medical College, in place of Prof. A. B. Crosby, deceased. J. S. McCallum, M.D., of Smith's Falls, to be an Associate Coroner for the County of Lanark.

PERSONAL.—Dr. G. S. Ryerson, of Trinity Medical School has been appointed house surgeon of the Royal London Ophthalmic Hospital, Moorfields. He is also clinical assistant at the Central London Throat and Ear Hospital, Gray's Inn Road.

INTRODUCTORY LECTURES OF THE MEDICAL SCHOOLS.—The introductory Lecture of the Medical Faculty of McGill College, Montreal, was delivered by Prof. Osler; Bishop's College, by Prof. Kollmyer, and Trinity Medical College, Toronto, by Prof. Kennedy.

VITAL STATISTICS.—The number of births, deaths, and marriages registered in Toronto during the month of September, are as follows: births, 178; deaths, 162; marriages, 96.

Books and Pamphlets.

AIKEN AS A HEALTH STATION, by W. H. Geddings, M.D., Aiken, S. C.: Walker, Evans & Cogswell.

SOME GENERAL IDEAS CONCERNING MEDICAL REFORM, by David Hunt, M.D.: Boston: A. Williams & Co.

EXCISION OF THE LOWER END OF THE RECTUM IN CASES OF CANCER, by John B. Roberts, M.D., Philadelphia: Sherman & Co.

CORPULENCE TREATED WITHOUT STARVATION: OR, HOW TO GET THIN, by M. M. Griffith, M.D., Parsons, Luzerne County, Pa.

THE USE OF OBSTETRIC FORCEPS IN ABREVIATING THE SECOND STAGE OF LABOR, by Edward S. Dunster, M.D., Ann Arbor Medical College.

PATHOLOGY AND TREATMENT OF SPRAINS, by Richard O. Cowling, A.M., M.D., Prof. of Operative Surgery, University of Louisville: John P. Morton & Co.

ON THE USE OF LARGE PROBES IN THE TREATMENT OF STRICTURES OF THE NASAL DUCT, by Samuel Theobald, M.D., Baltimore Eye and Ear Dispensary; Faculty of Maryland, 1877.

THE MEDICAL INTELIGENCER, containing a list of new books, and a classified list of other works. Also a condensed classified list for the pocket. (Free.) Philadelphia: Lindsay & Blakiston.

PRACTICAL HINTS ON THE SELECTION AND HOW TO USE THE MICROSCOPE, for beginners, by John Phin, Editor of the American Journal of Microscopy. Second edition, illustrated and enlarged. New York: Industrial Publication Co.

This is a small but very useful and practical book, wholly intended for beginners. It gives a full description of the various parts of the microscope and their uses, together with information in regard to the preparation and mounting of specimens, dry and moist. The work is an almost indispensable accompaniment of the microscope and should be in the hands of all who are commencing their microscopical studies.

Births, Marriages and Deaths.

In Toronto on the 8th ult., the wife of Dr. J. H. Burns, of a son.

In Toronto on the 9th ult., the wife of Dr. E. J. T. Fisher, of a daughter.

At Embro, Fitzgerald Sutherland, M. D., of Norwich, to Jean eldest daughter of D. Matheson, Esq.

On the 18th ult., by the Rev. G. G. McRobbie, of Tilsonburgh, (brother-in-law of the bride), John H. Newton, M. D., to Helen, fifth daughter of Robert Thomson, Esq., Port Stanley.

* *The charge for notice of Births, Marriages and Deaths, is fifty cents, which should be forwarded in postage stamps, with the communication.*

THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

VOL. X. TORONTO, NOV. 1ST, 1877. No. 3.

Original Communications.

ON THE SPECIFIC ACTION OF LARGE DOSES OF LIME-JUICE, IN THE TREATMENT OF ACUTE, SUB-ACUTE AND CHRONIC RHEUMATISM.

BY A. H. CHANDLER, M.D., DORCHESTER, N. B.

The recently reported cases of rheumatism, failures, as well as successes, with salicin, and salicylic acid, have induced me to bring to the notice of the profession the high value of large doses of lime or lemon juice, in all stages and types of that affection. From among the various methods of treatment advocated from time to time—acid, or alkaline; mint water, or expectant; opiate or salicylic—each of which, with the exception of the latter, now on its trial, have in turn been taken up and abandoned—the young practitioner must often be sorely puzzled in his choice of a remedy, when called upon to make a selection.

In advocating the lime or lemon juice treatment, the author cannot of course, presume to suggest anything novel; but, he does venture on claiming originality, with regard to the *largeness* and *frequency* of the dose, and hesitates not to offer it, when so given, as a veritable specific in this not seldom treacherous, and intractable malady. Without regard to the condition of the bowels, unless previously much constipated, I usually begin with at least ten ounces of lime juice, increasing rapidly up to eighteen or twenty-four, in the 24 hours—from half an ounce to an ounce, or more every hour, with not less than double or treble the quantity of cold soft water—usually diluted and sweetened, however, to the patient's taste. Very often, on the second day, the amendment is decided, and the disease, in acute cases more particularly, sthenic or asthenic, generally subsides on the fourth or fifth day of treatment. One grain of opium is usually given, with or without lead, and tannin, night and morning, in order to restrain the bowels, which the juice has a tendency to relax. The first effect of such heavy doses is the rapid diminution of joint swelling, and diminished prespiration, together with steady falling of pulse, the latter often quite slow with a slight tendency to syncope, the majority of the cases requiring quinine, and supporting food about the sixth or seventh day, when convalesence advances rapidly. The following is a case of active sthenic type, occurring in a robust healthy woman.

CASE I.—Mrs. J. C, æt. 40. On arrival at 8 a.m. July 13th, found the patient very hot and restless; anxious countenance; suffused, swollen face; conjunctivæ deeply injected, smarting, and accompanied with epiphora. Pulse full, bounding, and about 100. Almost every joint much swollen; knees, elbows, and wrists, intensly so. Not able to turn, or lift up in bed; pains very acute. Had chills and rigors for a day or two previous to visit; sweating profusely. To have ʒiii. of lime juice every hour, night and day.

July 14th.—Patient generally improved; less anxious and restless; pulse 80; face no longer swollen, and red; lachrymation ceasing. Able to move and turn. Joint pain and swelling much less. Increased lime juice to about 14 ounces daily. July 15th.—Still improving; slight nausea; discontinued lime juice, and ordered weak lemonade made from fresh lemons. July 16th.—Patient pale and quiet; all pain and swelling subsided; pulse slow; feels pretty weak; to stop lemonade; diet, strong beef tea, eggs and milk; to have quinine every two hours, night and day. July 17th.—Still improving in every way; to continue quinine, etc. July 20th.—Convalescing rapidly; appetite good, and tongue clean; to sit up to-morrow.

CASE II.—February 28th.—R. B., æt. 30. Had been taking medicine from another physician; some days ill; fever still pretty high; tongue much furred. Wrists and knee-joints greatly swollen, and suffering from flying pains in different parts of the body. Ordered 16 ozs. of lime juice daily. March 2nd.—A great deal easier. Still suffering more or less from shooting pains; but fever, swelling, and sweating subsided. March 3rd.—Discontinued lime juice, and placed him under colchicum, belladonna and carbonate of iron; beef tea, eggs and milk. March 7th.—Convalescing rapidly, and gaining strength. To go out every day. Neuralgic pain,

almost entirely disappeared. To continue pills of iron and belladonna twice daily.

Case III.—May 6th.—Thomas W., æt. 19. Has been ill for the past week; fever not very high, but joints greatly swollen; weak; confined to bed; perspiring profusely; tongue coated. Ordered lime juice, 16 ozs. daily. May 8th.—Not much improved. Increased the juice to 32 ozs. daily, as he bears it well and likes it. To have an opium pill every night. May 12th.—Swelling subsiding rapidly, but not entirely gone. Tongue cleaner; suffers still from a little pain. Night sweats diminishing. May 14th.—Improving rapidly. To continue lime juice, but only as a weak lemonade; prescribed quinine. In the above case, the attack was sub-acute, but of a decidedly asthenic type, and I was in great doubt as to the benefit to be derived from the lime juice in large doses; however, by pressing its use, and carrying it up to two pints daily, all the symptoms rapidly vanished. Diet throughout consisted of beef tea, eggs and milk.

Case IV.—John N., æt. 22. February 12th.—Acute rheumatism. Full pulse; high fever; joint swelling and constant profuse perspiration. Ordered lime juice 20 ozs. daily. In this case there was no particular feature of importance, beyond the fact of the rapidity of the action of the lime juice. The disease was entirely aborted, so to speak, in three days. The following are the notes of his condition on the fourth day. February 16th.—Pulse 82; tongue cleaning; sweating slightly; no thirst or pain, but weak. Placed under quinine in full doses. This patient convalesced rapidly.

The above cases extending over a period of five or six years, are taken at random, from my note book. These along with others, *acute*, *sub-acute* and *chronic* have yielded rapidly to large doses of lime juice. I have had no failures with it employed in this way; and offer these excerpts for the consideration of my medical brethren, with the fullest assurance and confidence that they will find in the juice—thus largely given—a veritable specific for rheumatic seizures.

I should like to close this paper with a full account of a most interesting case of chronic rheumatism, in a young man of thirty, but have, unfortunately, mislaid the notes of it. Suffice it to say, however, he had been for three years a martyr to intense suffering, laboring from time to time under acute attacks. I found him confined to his couch,—a cripple and confirmed invalid. Lime juice and fresh lemons were given freely for upwards of five weeks, with a slow, but sure and steady improvement. Being much debilitated from the first, porter and quinine were given largely throughout the treatment of his case. When last seen, several months subsequent to leaving my hands, he had suffered no relapses; was very hearty and robust in appearance, and in every way an altered man. He had quite recovered from his lameness, no stiffness of joints remaining, save two or three fingers of one hand, the latter due to a little permanent flexor contraction and thickening.

Since writing the above, I add the following notes of a somewhat interesting case just convalescing:—G. D., æt. 36; married. Had an attack of diphtheria three weeks since, from which he rapidly recovered under stimulants, followed, Sept. 10th, by a severe seizure of erysipelas of the left foot. For the latter he was given large doses of tincture of iron, egg-mixture, beef-tea and quinine freely.

On the morning of Sept. 17th he was attacked with sharp pain, followed by distress and soreness in the region of the heart, for which—deeming the symptoms as merely neuralgic in character—he was given a full dose of belladonna and opium combined.

Sept. 18th.—No better. Præcordial distress on the increase, with decided fever, full pulse, and rheumatic swelling in knee and shoulder joints, both sides; tongue deeply furred, and perspiring profusely at night. He was placed at once under lime-juice, 16 ozs. daily. Diet—as system has been weakened by recent illnesses—beef-tea, eggs and milk and two ounces of brandy daily.

Sept. 19th.—Heart feels easier and throbs less, but no amelioration of joint symptoms; pulse weak and very quick.

Sept. 20th.—Swelling of wrists and insteps, involving also the smaller joints—fingers and toes; both hands, too, on dorsal aspect, very puffy, swollen and red. Patient looks anxious and restless; constant thirst. Doubled the dose of lime-juice to 2 pints daily, by measurement.

Sept. 21st.—More placid; pulse 100; slept well, between every dose of the medicine, the first time for the past three nights; swelling of all the joints subsiding; night sweats and thirst declining. To continue the juice, 32 ounces daily. An opium and tannin pill night and morning, as the bowels

were slightly relaxed. To continue beef-tea, egg-mixture and stimulants.

Sept. 22nd.—Reduced the lime-juice, as he is much improved, to 16 ounces daily. Patient a little weaker, but otherwise improved; pulse 100.

Sept. 23rd.—Stopped the lime-juice; pulse 104, weak and compressible. Sweats still a good deal at night, but attributed to general nervous debility; placed under quinine, in 1½ gr. doses every two hours night and day.

Sept. 25th.—Convalescing; able to get out of bed into an easy chair without assistance; tongue cleaning rapidly; heart sounds normal.

The above case presents some points of considerable interest, and shows what supporting treatment will do in maintaining the system under trying circumstances. Three sharp attacks of as many ailments, occurring within a period of five weeks, is sufficient to tax the powers of any nervous system. It will be observed the pulse ran high all through his last affliction. This may doubtless be attributed in part to the disease having spent considerable of its force on the heart, to the general debility of the patient from causes already referred to, and to his naturally high pulse—about 90 being its healthy standard. The very large doses of the "juice," too, requisite in conquering the attack, is also interesting. Without it the heart would, in all probability, have fared badly.

In conclusion, let me enjoin the absolute necessity of using only pure juice, and, when there is any doubt—of obtaining *fresh lemons*. The latter must, of course, be given in abundance, sufficient to furnish the equivalent of not less than 12 ounces of lime-juice daily.

CANCER OF THE STOMACH.

BY G. B. MOTT, M.D., PETROLIA, ONT.

J. C. H., æt. 65, called at my office on the 27th of May, 1876. He complained of difficulty in swallowing, with pain and tenderness over the region of the stomach and a constant desire to eructate; but owing to a supposed stricture, eructation was impossible. He had been treated for dyspepsia and a variety of stomach diseases, but with slight temporary relief. Upon enquiry, I learned that he had experienced more or less pain in the neighbourhood of the stomach for the last five years, and had suffered from habitual costiveness nearly all his life. He was born in Vermont, U. S., and when quite young, emigrated with his parents, to Canada, where he remained up to the time of his death. Family history good, having no trace of scrofula; father died æt. 65 from pneumonia; mother at 95, from apoplexy; habits strictly temperate; has been engaged in the oil business for the last twelve years in Petrolia. From a thorough physical examination and the history of his case, I diagnosed cancer of the stomach, which was received with astonishment and doubt by my patient.

I applied tincture of belladonna over the stomach once a day and ordered him lime water and milk; beef tea and oyster soup to be taken frequently and in small quantities, which was continued up to the 12th of June, after which I lost track of him until the 1st of October, when I was sent for to visit him at his residence. I learned that he had been under Homœopathic treatment during the interval, with slight occasional temporary relief. His condition was much worse, all the previous symptoms being aggravated, with œdema of the lower extremities. He urged me to do something for him. I refused to attend him without consultation, in which my patient acquiesced, and Dr. Edwards, of Strathroy, was sent for. He fully coincided with my diagnosis, and the following treatment was agreed upon:

℞—Bismuthi Subnit., grs. viij.
Pulv. Ipecac., gr. j.
Sodæ Bicarb., grs. xvj.
Div. in chart., No. viij.
Sig.—One to be taken every three hours.

℞—Strychniæ, gr. j.
Aq. Pur., ℥ vj.—M.
Sig.—A teaspoonful three times a day.

Counter-irritation was ordered over the stomach with belladonna, iodine and mustard, as required to allay irritation of that organ. Under this treatment some improvement took place in his symptoms, which, however, was of short duration. He remained in about the same state up to the 20th of November, when he was seized with paralysis, from which he partially recovered, death taking place on the 30th. I might here state that the stricture, of which he complained so much, gave way about three days before he was taken with paralysis, which enabled him to swallow without any difficulty.

Autopsy, twelve hours after death in presence of Drs. Edwards, Henderson and Stevenson of Strath-

roy, Lougheed of Petrolia, and a few friends of deceased. An incision was made from the top of the sternum to the pubis, through the integument; the sternum was separated from the costal cartilages and removed, exposing the lungs, the upper lobes of which were found to be adherent to the walls of the chest, but otherwise healthy with the exception of pigmentary deposit. Heart, pericardium and spleen healthy; several large deposits of melanotic cancer in the liver and kidneys. The cardiac orifice and lesser curvature of the stomach were involved. The pancreas appeared to have been the starting point of the disease as that organ was a complete mass of adhesion. An incision was made into the stomach, and a large clot of blood, the size of a man's closed hand, was discovered. The difficulty in swallowing complained of so much by the patient was caused by a cancerous tumor in the œsophageal opening of the stomach, which had dropped downward by reason of its weight, and no doubt was the cause of the relief in swallowing which took place two weeks prior to death. It was thought unnecessary to examine the brain, as the cause of death was quite evident from the examination just made.

The above case is not only a very interesting, but also an instructive one, especially as the more prominent symptoms of true cancer, as given by the best authors, were absent, such as vomiting and the passing of blood and matter with the stools. The patient informed me that he never was sick at his stomach, much less to vomit. Most authors regard vomiting as a pathognomonic symptom of cancer of the stomach.

HERNIA—THE AUTHORS WHO WROTE ON IT—AND ITS TREATMENT PRIOR TO THE 18TH CENTURY.

BY J. R. ALEXANDER, M.D., MONTREAL

In the limits of the present article it will be impossible to enter very fully into all the authors' views, or even to give all their names, neither will I take the space necessary to mention the works from which most of it has been taken, but will, as briefly as possible give the principal means adopted with a view to cure hernia, reserving for another time some minor considerations.

The first allusion to hernia, although not definitely mentioned, is to be found in Leviticus (xxi. chap.) 17, 18, 19, 20th verses, where the command is given: "Speak unto Aaron, saying, whosoever he be of thy seed in their generation, that hath any blemish, let him not approach to offer the bread of his God," and then the blemishes are enumerated, and I believe that hernia is one of them. Between the time of Pythagoras and the Peloponnesian war, philosophy and physic made such rapid progress that it was deemed necessary to divide them. But it is to Hippocrates that must be given the honor of the division of Physic into Medicine and Surgery, each branch having much more than any man can possibly master in the longest and most studious lifetime, and if this natural division had been followed, and even subdivded, how much better it would have been for all interested? He was the first who gave anything like a correct account of the diseases of his age, and he was the first who described hernia; and although not technically accurate as we understand it, no doubt it was substantially correct for the age in which he lived. It was less frequent in that age than at present, with our artificial and hot-bed diseased society.

Following Hippocrates we have hernia described by Meges, Georgias, Heron, and Softratus, but by none of these is given any definite treatment for this affection. During the reign of the Emperors Augustus and Tiberius, Celsus described most accurately, hernia of the groin and scrotum. He gives the manner of operating in his time in hernia. The surgeon opened the scrotum, took hold of the sac, and after he had returned the intestine, cut it off; then he tied the spermatic cord and removed the testicle. He cut out part of the scrotum and re-united the lips, to form a solid cicatrix that would prevent the falling down of the parts. In the time of Antoninus, Galen and some of his successors described these diseases more accurately than was done before. Oribasius, Ætius, but more particularly Paulus Æginetus, who lived in the seventh century of the Christian era, omitted nothing which pertained to the method of treating hernia in his time, which varied somewhat from that practised by Celsus, because Constantine, the first Christian Emperor, who no doubt saw its evil effects in his empire, enforced a law against the treatment by the removal of the testicle. The only change introduced by Paulus Æginetus in the Celsus operation, was the tying of

the sac and cutting it off below the ligature. Up to the latter part of the sevententh century, the principal writers (not already referred to) were Albucasis, Roger de Parma, Guy de Chauliac, Lafranc, Franco, Benedictus, Pare, the Fabricii, Brechet, Bartholinus, Fallopius, Albenus, Vesalius, Berault, Scultetus, &c., &c. Albucasis gives another method of operating, or rather torturing, in which the testicle is not treated with any more regard. He applied the actual cautery to the opening through which the intestine protruded, and let it penetrate to the bone, so that the bone and the scrotum may be united closely together. Roger de Parma did not spare the testicle either; he took a large needle, threaded with twisted thread, and passed it through the thickest part of the scrotum below the spermatic vessels, he then placed some hard substance on the top of the scrotum and tightened the thread every day. Many favoured this mode of treatment. Lafranc, apparently wishing to be more cruel than others, if possible, applied a large pair of pincers, with slits in them, through which he ran a red hot sharp knife to cauterize the os pubis. Guy de Chauliac made use of caustic to burn the ring and sac, and pretended not to injure the spermatic cord. Berault used gold wire; first the rupture was reduced, and the sac opened; he then passed a gold wire through it near the ring four times, then twisted the ends tightly together, and carefully dressed the wound. Franco and many others operated in the same way, but made use of common wire, and even lead.

The removal of the testicle for the cure of hernia became quite common, especially in children, so that in Holland a law was passed against it, and in the beginning of the eighteenth century a law was passed against it in France, one woman alone having castrated five hundred children. The Prince of Moldavia, in his history of the Ottoman Empire, says that the inhabitants of Albania and Epirus excel in the cure of hernia, and he then describes the process which he observed as follows: "As to the cure of hernia, they undertake it upon all sorts of people, and of all ages. Their method is very coarse, but yet successful. When I was at Constantinople I had the operation performed upon my secretary who was an elderly man, in my own palace. Having agreed as to the expense, they tied the patient down to a board, and secured him firmly from his chest down to his feet with strong bandages; then the operator made an incision in the lower part of the abdomen, with a sharp knife. The peritoneum being opened, he pulled out about the bulk of a hand of the internal substance under the skin, then drew up the intestine, which was in the scrotum, into its proper place. Afterwards he sewed up the peritoneum with very strong thread, which had a knot at the end to prevent it from slipping; and then the lips which hung over were cut off with the same instrument. The wound was rubbed with hog's fat and cauterized with a red-hot iron. Before the dressing was applied they lifted up the legs of the patient, who was nearly dead, and poured the white of nine new-laid eggs into the wound; and if that liquor fermented and bubbled within the space of an hour or two, it was a certain sign of cure. On the contrary, if there was no appearance of that kind in three hours, they considered it unfavorable and promised nothing. They always attributed ill-success to the age or weakness of the patient, for they have no doubts of the efficacy of their method; and indeed there seldom die two out of one hundred of those whom they undertake. After two or three days they repeat the use of the white of eggs; and all this time the patient is kept extended upon the back, without giving any signs of life, or having very much sensibility. The operators did not suffer him to take any thing; but thought it sufficient to moisten the tongue from time to time with a little water. The fourth day they took him out of bed, still secured to the board, when he came to himself, and with a feeble voice complained of his pains. They gave him three or four spoonfuls of warm water to quiet him, and the three following days, broths were given to him sparingly, but he was not allowed to touch solid food. On the seventh day he was untied and put to bed, but was watched to prevent his turning on his side or stirring his legs. Every day the application of the white of eggs was renewed, but from the ninth to the twelfth day, only six were applied, and as soon as they were poured on the wound they fermented more than they ever did before. The white of a single egg could scarcely be admitted on the fifteenth day, but it was continued whilst any would enter, and there was the least appearance of fermentation. As soon as fermentation was over, the wound was covered with a plaster made of pitch and oil, then

the patient was allowed to stir his feet and to lie on his side. Every morning the thread was pulled to see if the ligature could be removed, which depended on the strength of the patient. Some were cured in twenty, others thirty, and others forty days; it was considered a cure when the thread was removed and a second plaster applied to complete the healing." He then says, "Here we see a surprising operation, of which I was an eye witness, and which is practised with success, by a savage people, ignorant of science."

That which will strike the careful observer most forcibly in the foregoing will be the great barbarity in the means employed by all, which had in view the same end, viz., the closing up of the opening through which the parts protruded, and at the same time he must have been led to think that if as much time and talent had been spent to devise some mechanical means of support, having in view the end desired—a radical cure, as was wasted to contrive means of torture, there would have existed at the beginning of the eighteenth century something worthy of the name of truss or support. Is it not astonishing that there was no definite mode of treatment? That there was not is an undisputed fact, but if we wonder that there was no established principles for the treatment of hernia, the most frequent disease to which the human family was subject, at the end of the seventeenth century, should we not be overwhelmed with astonishment when we consider the fact, that now, near the close of the nineteenth century, there are yet no fixed rules for the treatment and cure of hernia. I am not now speaking of operations, or of strangulated hernia, or old cases of twenty or thirty years' standing, which should have been cured long ago, where the muscles and tendons are all relaxed and wasted away by the pressure of bad fitting trusses, and when the opening has become very large, but I am speaking of those who are recently ruptured, and who go to the surgeon for treatment. They will be told, "Oh, it is nothing, just go and get a truss and wear it; but you need never expect to be cured." There is no doubt that many cases of hernia can be cured, and that with comparative ease and certainty, by a proper mechanical contrivance; and hence the greatest possible care should be taken in the selection of a suitable truss.

ON STRABISMUS AND ITS OPERATION.

BY ADOLF ALT, M.D., TORONTO.

Late Resident and Assistant Surgeon and Lecturer on Normal and Pathological Histology of the Eye and Ear to the N. Y, Ophthalmic and Aural Institute.

Strabismus, especially convergent (hyperopic) strabismus, seems to be a comparatively frequent disease in this country, and neither the necessity nor the feasibility of its operation seem to be rightly appreciated. In countries where every student of medicine is forced to study ophthalmology, as well as all the other branches of medical science, (as in Germany and France,) and where ophthalmic surgery is an often chosen specialty, the frequency of strabismus has been greatly reduced, since every practitioner is aware of its serious consequences, and knows that its cure is comparatively easily accomplished. This is an important fact, as it lies mostly in the hands of the family physician, whether parents consent to have their children operated upon or not, and only the lack of familiarity with the subject can excuse the advice so often given "that it is not necessary to operate"; "that the child will outgrow it," etc. That a conscientious physician will not act so, if he knows better, is plain and it therefore may be of interest to bring some of the leading points on this frequent disease, before the general practitioner.

There are two kinds of squinting which must be distinguished, paralytic and muscular strabismus. The former is the rarer form. It is distinguished by double images, and caused by paresis or paralysis of one or more of the six muscles of the eyeball. In the latter—the muscular strabismus—the two opposite muscles do not act with equal force, and therefore the stronger one pulls the eye towards that side. This is caused by the relaxation of one muscle, and hyper-retraction of its opponent, or an abnormal insertion of one of them upon the sclerotic, either too far forward or too far backward. In cases of muscular strabismus the motility towards the side of the weaker muscle (or the one inserted farther backward), is only restricted, not totally wanting, as is mostly the case in paralytic strabismus, and is abnormally large towards the opposite side. The patient may squint with one eye only—this is the most

frequent kind—or alternately with both eyes. Though generally the squinting eye has previously been the weaker one, it loses its usefulness almost entirely if the patient is not cured of his strabismus. Like any organ, the services of which we do not require, it gradually becomes weaker; the squinting eye, which is not used, becomes more and more amblyopic, and, as a general rule, the longer the patient squinted, the more amblyopic it is. Patients suffering from alternating strabismus have thus an advantage over those with unilateral strabismus; they use both eyes.

Happily we are able to cure strabismus. In former times this was aimed at by forcing the patient to use the squinting eye. For this purpose the sound eye was bandaged, or the patient was ordered to wear glasses which partly shaded the sound eye and prevented the patient from looking in a certain direction. Others used stenopaic apparatus. It is not my intention to criticize these methods, but would simply state that all of them are tedious and unreliable, the more so, since squinting commonly begins too early, and is manifest before the patient can wear glasses. If the strabismus appears in a person old enough to wear glasses, a cure may sometimes be attained in that way. It has been found that convergent strabismus is usually combined with a hyperopic, and divergent strabismus with a myopic condition of the eyes, and the respective glasses have been used with a view of curing this disorder. They do so, but only in the beginning. The only reliable way to cure strabismus is by operation.

There are two operations for strabismus: the simple tenotomy, and the tenotomy of one, and advancement of the opposite muscle. The simple tenotomy of the stronger, retracted muscle, is a comparatively slight operation, and especially since we perform it sub-conjunctivally, being borne, as a rule, almost without any reaction.

The purpose of severing the muscle from its insertion upon the sclerotic, is to force it to attach itself further back. If immediately after the operation has been performed, we have not gained the desired effect, we may improve it by stitching the eyeball to the opposite corner. To judge of the effect we must keep in mind that immediately after the operation the patient should be able to move the margin of the cornea with the severed muscle respectively, to the caruncle, or to the outer commissure according to the kind of strabismus which has been operated upon. If he can move the eye farther, we have not gained all that is necessary; if he cannot move it so far, we have done too much and must reduce the effect by a suture, or the patient will later on, squint towards the opposite side. This danger of converting for instance a convergent strabismus into a divergent one, is the reason why a conscientious operator never should operate on both eyes at one sitting. If we have not accomplished all we want by the operation on one eye, we may after some weeks correct the other one. Tenotomy is not generally so efficient in divergent, as in convergent squint. Where the simple tenotomy is not effective enough, we must resort to the advancement of the opposite muscle. The idea of this operation need not be explained.

The same that has been said concerning convergent and divergent strabismus, is the rule for the much rarer forms of upward and downward strabismus. Cases, where the strabismus is caused by some other defect of the eye like leucoma cataract, apkakia, etc., have to be exempted from the foregoing remarks.

The operation for strabismus is so simple, that alone from an esthetic point of view, patients should undergo it, even if they would not gain more. Yet they can gain considerably more, and the more, the earlier the operation is performed. They may retain good, or comparatively good, vision, in an eye which without the operation, will get more and more useless. often so much so, that if the other eye later on is lost by accident, the patient is not much better than blind.

Correspondence.

To the Editor of the CANADA LANCET.

SIR,—I noticed in the LANCET of last month that my respected friend, Dr. Hingston, of Montreal, was the first to perform the operation of hysterotomy in Canada. Possibly this is correct as far as known; but in 1865 I performed it, assisted by Dr. Turquand, of Woodstock, and Dr. Chrysler, of Burford. At a future time I will write a history of the case, but in the meantime I desire to put the operations in chronological order.

I am, yours truly,

DANIEL CLARK,

Med. Supt. Toronto Lunatic Asylum.

Oct. 19, '77.

THE TYRANNY OF A FALSE SENTIMENT.

To the Editor of the CANADA LANCET.

SIR,—The interdiction is not to be found, at least not directly and plainly, in our code of ethics, but some how that code is understood to erect numerous barriers between the public and members of the profession—I refer to the relations of common citizenship. To a certain extent that is right and proper, inasmuch as it tends to keep men more or less unscrupulous as to the use of means, from bringing themselves into public notice. No one having regard for the dignity of the profession will deny that safe-guards are necessary, of a more or less stringent character, the transgression of which will bring swift and certain odium upon the transgressor.

While fully and freely conceding all this, within reasonable bounds, and I suppose no one claims more, yet for a long time I have been of the belief, that the very existence of such safe-guards—as understood and interpreted—that the knowledge that their private and public acts are watched with an argus eye, and a jealous suspicion, has, in a very large measure, served to curtail the usefulnesss of medical men as members of the community in which they live. They feel themselves surrounded by barriers—they feel cramped, burdened, and not at liberty like other men to act naturally. If it can be shewn that this is the position occupied by medical men, and I think it can, it must be confessed it is a humiliating one.

The code of ethics prohibits all newspaper cards, but it says nothing against a medical man writing a series of letters to a newspaper on topics immediately or remotely identified with medical science, yet by tacit understanding, such an act, however much in the public interest, is regarded as unprofessional. Many gentlemen in our ranks could edit a department in the local paper greatly to the profit of the community, but the censors say no; such conduct is simply a bid for public favor, they allege, and if the crime is persisted in, the medical press, and the county society, will hurl their maledictions at the offender's devoted head, and for ever after brand him as an outcast. Or it may be, that after many misgivings, and much fear and trembling, an able member has ventured to come out of the shell of which he is an unwilling occupant, for the purpose of addressing his fellows upon some subject which he conceives to be of vital public importance, owing to its relation to health and life. Forthwith he is accused of advertising his wares, and abjudged guilty of the whole law. Some jealous, stupid fellow who is trying to get a part of his practice perhaps, sends his complaint to the *Lancet*, or formulates charges at the ensuing meeting of the local society, and generally, such a storm is raised, that the able and disinterested member resolves never again to appear on a public platform. These things do not very often occur *in the letter*, but *in spirit* they are daily and hourly occurring. Men who could instruct and edify the public, refrain from using their talents for fear of arousing jealousy and ill-feeling amongst their local brethren, and calling forth the anathemas of the medical press and the societies.

Let me give an illustration of the evil spirit which pervades the profession in this regard, especially in country places. A few years ago two medical men resided in one of our villages. The first to locate there fancied, he had a proprietary right to the whole field, as is usual, and was determined to keep at bay all intruders on his vested rights. He did not, however, up to the time to which I am going to refer, refuse to interchange with the new comer, a cold, "How do you do." He was no speaker, while the new man could make a few passable remarks in public. Some public gathering was about to take place, the nature of which seemed to render it probable that both these gentlemen would be called to their feet. In the meantime the doctors chanced to meet, and it was alleged, that resident number one, extorted from number two a promise not to speak. The gathering came off, but after all, for some reason, number two made a short speech. There never had been much cordiality, but on that day war was proclaimed to the bitter end, which has probably continued to the present time. Just fancy two sensible men in any other sphere of life displaying jealousy and vindictiveness under similar circumstances! Why cannot medical men live as harmoniously as the lawyers? Is it not a fact that our jealousies and *crotchets* are standing jokes amongst members of other professions?

Here we have powerful elements at work to dwarf and snuff out the intellectual forces of the profession, instead of giving them free play and encouragement. I believe there is as much, if not

more, genuine talent in the medical profession as can be found any where, but it is hid under a bushel; nay, buried away far out of sight. So much is this the case, that medical men will not even come out in defence of true medical science when it is assailed by lying and ignorant men. No: neither by lecture nor pamphlet will they go to their own defence. The legitimate fruit, under favourable circumstances, is the unopposed spread of empiricism; more especially do we see this in the United States, where, as a rule, there are no repressive laws.

In all this there is something wrong—something calling for a remedy. Medical men of known ability should be encouraged to come out, and let the public have the benefit of what they know of matters of general importance and interest. Why should the doctor, any more than the clergyman or lawyer, be looked upon with jaundiced eyes, or as advertising his wares should he see fit and proper to deliver a public lecture, for example, on the popular and important subject of pure air in relation to health? Or, why is not a doctor equally at liberty with other men to write for the papers and manfully assume the responsibility of what he writes by appending his name? There is no great reason that I can discover, and it is about time the profession were relieved of this mean, dwarfing and annoying tyranny.

Mark, I am not contending for the liberty of writing up diseases and calling attention to modes of treatment, or anything of that kind. That would be charlatinism in one of its worst forms. What I claim is, our code of ethics, good enough it may be in itself, should be so interpreted by the medical press and the profession as to give rise to a manly and healthy sentiment in regard to the matters of complaint, that members of the profession may go out amongst their fellow men as free from restraint as educated gentlemen in other professions. That is all.

Much of the difficulty, of course, arises from petty jealousies, unworthy of men occupying the position of members of an honorable and learned profession, but the evils complained of are rendered still more burdensome and harassing by a spirit of illiberality pervading the profession, having its root in false notions in regard to "professional dignity!" To illustrate: The secular press teems with reports of sermons by eminent divines, and speeches by great lawyers. Such reports are often accompanied by eulogiums upon the eloquence and ability displayed. With all this, no one finds fault—not even medical men. It is admitted that it is all right and proper, and not in the least degree derogatory to the dignity of either profession. Both the divine and the lawyer, let it be observed, are spoken of as acting within the limits of their respective callings. Now let Dr. Somebody be called to a case of injury by accident, or let him perform a brilliant operation and save a valuable life, and let the matter be reported in the press, and behold what a change of sentiment! It is all right for the minister or lawyer, but for the press to treat a medical man in that way is simply outrageous, and the poor editor must be soundly rated for allowing such matters to find a place in his columns. Great lawyers believe in publishing their business cards, but doctors are forbidden to do so because, forsooth, such a practice is "derogatory to the dignity of the profession." The fact that this prohibition is practically ignored by hundreds of our best men is the best proof of its absurdity. Let it not be understood that I am advocating a general system of advertising—not by any means; but I contend that we have no right to become censors of the press, nor in any way interfere with the rights of editors so long as our own rights are not infringed upon. Moreover, I claim for medical men the same immunity from censure and *suspicion* that is enjoyed by members of the other learned professions. I believe the practical adoption of these views would greatly tend to promote the growth of manly independence, the development of talent, and the general usefulness of medical men in the communities in which they live.

The importance of the subject is my only excuse for the undue length of this communication. Your own views, Mr. Editor, on some of the points raised, I am convinced would prove of general interest to the profession.

ANTI-HUMBUG.

October 10th, 1877.

CRIMINAL DISSECTION.—The House Surgeon of the Glasgow Maternity Hospital was arrested for violating the Anatomy Act, in dissecting the dead body of an infant against the expressed wish of its mother.

Selected Articles.

VASELINE AND SALICYLIC ACID IN OBSTETRICS.

In a recent number of the *Medical Record* I called attention to the use of vaseline and salicylic acid in the healing of wounds; in the present I propose briefly to mention some of the various uses for which this compound seems adapted. Vaseline, is a hydrocarbon made from petroleum by simple evaporation and clarification. It is very cheap, being worth only some forty to fifty cents a pound. It has no taste or smell. Its rôle as a protective against the action of the air is extensive, as in burns, excoriations. etc. It is one of the best of lubricants. Its use is simple and especially in complicated labors is thus very advantageous. Internally, it seems to relieve irritation of the mucous membrane, and, when taken up by the system, though it undergoes no proper digestion, to act much in the same way as cod-liver oil. As a vehicle for more active agents, it is more generally useful than any other oil-like compound. Salicylic acid has of late come into vogue, and is now used for a great variety of purposes—principally as an antiseptic, to reduce the heat of the body, and in diseases in which there is a morbid material in the blood, as in rheumatism and gout, etc. It is not expensive, costing from thirty to forty cents an ounce. I have tried several samples of different manufacture, and find that of Rossengarten, of Philadelphia, by far the best, while the German article that I have used has proved caustic and utterly unfit for many purposes. The American acid is in silky, white crystals, like quinine, has no caustic taste, and, mixed with vaseline, makes a homogenous ointment. The German is amorphous, looks like chalk, has a slight pinkish color and caustic taste, and, mixed with vaseline, makes a lumpy, irritating ointment, unfit for use.

With these few preliminary remarks, I will now briefly notice some of the many uses of these two valuable agents; and first as to their use in obstetrics. It has been my practice for some time back to use vaseline, with a grain or more of salicylic acid to the ounce, and scented with a drop of ottar of roses, in all vaginal examinations, instead of oil or soap. I believe I thereby more certainly avoid carrying infection from case to case than I should otherwise do. In first confinements it may be used in the first state of the labor, so soon as the woman takes to bed. I make use of a glass syringe, an inch in diameter without a nozzle. With an instrument of this kind an ounce or more of the semi-solid vaseline can be introduced up to the os, where it remains at the temperature of the body, in a semi-solid state. I use it in this way as a simple lubricant, and without the addition of the acid. If desirable, in certain cases, it can be combined with the extract of belladonna, and, after the labor is completed, with the extract of ergot, or, in case of hemorrhage, with the liq. ferri persulphatis, with all of which it mixes well. If it is desired to introduce it into the uterus, it can be rendered fluid by putting the bottle containing it into water of a temperature of 100° F., when it can be used with the ordinary uterine syringe. In the course of a labor I use three to six ounces, with the effect, as I claim, of shortening the first stage of labor and rendering the parts especially in first labors, easily dilatable in the second stage, while, after the placenta is delivered, a small quantity of the vaseline, with the acid added, disinfects the discharges, and does much, it seems to me, to prevent purulent absorption. Indeed, if puerperal fever was prevalent, I should not hesitate to introduce it freely into the uterus immediately after confinement. To illustrate the healing qualities of this combination, I some time ago had an extensive rupture of the perineum in a primipara, due to an unusually large child and to an unyielding perineum. I passed two pins through the lips of the wound and a figure-of-eight around each, and directed the patient to introduce a little of the vaseline ointment two or three times a day on her finger. On the third day after, when I next saw her, on removing the pins I found the wound entirely healed. My cases are not sufficient to base positive conclusions on, but *I am inclined to think that an hour or more can be saved in an ordinary labor by the use of the vaseline, and that the second stage will go on easier owing to a more thorough relaxation of the soft parts, and to the avoidance of unnecessary friction, and that its use with the acid after labor will do much to prevent puerperal absorption, and, in any event, will conduce to the comfort of the patient.* In dilating the os with the sponge tent, I find that by coating it with the vaseline and the acid, (ten grs. to the ounce), I can more readily introduce it, the tent not expanding at first, owing to the coating of vaseline; but, if held for a moment or two in place, it will remain without danger of its coming away, and will expand to the same limits that it would have done without the coating of vaseline, as can easily be proved by putting two tents in water, one coated and the other not. In erosions of the os, after the engorgement of the parts is removed by glycerine pads, the vaseline and acid ointment, applied on cotton-wool, will do much to effect a speedy cure, especially if alternated with the glycerine. There is one use for this ointment that I have not fully worked out. Physicians are frequently applied to, to produce abortion. Recently, on the same day, two women came to me; the reason assigned in the one case was that the husband was syphili-

tic; in the other that pregnancy brought on violent attacks of spasmodic asthma. Of course I explained that the child had rights as well as the mother, but it was all that I could do to prevent one of these cases from going to a professed abortionist. In some cases of this kind prevention is better than cure, and I am inclined to think, from some experiments, that vaseline, charged with four to five grains of salicylic acid, will destroy spermatozoa, without injury to the uterus or vagina.

In concluslon, there are a number of uses for vaseline in the lying-in-room and nursery. I make no claim to its being "a cure-all," but it is a great convenience, and its "rôle" is extensive. The ointment makes a good dressing for the umbilical cord. Vaseline answers better than oil or soap to remove the cerumen from the newly-born infant. Mixed with an equal weight of honey and ten grs. of borax or of chlorate of potassa to the ounce, it answers an excellent purpose in case of thrush. The ointment alone, or mixed with ten grs. of quinine to the ounce quickly removes the small worms that frequently infest the anus of young children. In the excoriations of infants it effects rapid healing. In the not uncommon sore eyes of the first few days of life the vaseline alone introduced within the eyelids, effects a cure in a day or two. Again, in the "snuffles" of the old women, which, by preventing nursing, frequently seriously effect the health of the infant, it, when introduced into the nostrils with a camel's-hair pencil, answers better than anything I have as yet tried, especially if the head is kept warm with a flannel cap. There are many other uses for vaseline, alone or combined with varying proportions of salicylic acid, that the experience of the physician will readily suggest to him in this connection. There yet remains to be considered some of the uses of these agents in other departments of medicine, which in a future number of this journal, I will briefly refer to.—*Dr. Dubois, Med. Record.*

CLINIC BY PROF. LOOMIS, NEW YORK.

CIRRHOSIS OF THE LIVER.

The history of the case is as follows: The patient is 35 years of age, a well-built and powerful man, and complains simply of an uneasy sensation and a sense of fulness in the region of the stomach. He has vomited occasionally, but has never vomited blood, nor has he passed blood by the bowels. He has been addicted to the use of alcoholic drinks for several years; gets drunk occasionally, and *takes his liquor* "straight." As the abdomen is exposed you will notice while the man is in the standing position that there is a swelling in the region of the stomach. When the patient lies down, however, this distention entirely disappears. No tumor can be felt, there is no dulness upon percussion, but on the contrary there is marked tympanitic resonance over the region of the stomach as well as over the entire abdomen. Percussion over the region of the liver reveals the fact that the arc of normal hepatic dulness is very much diminished.

Comments.—The fact that this man has been a drinker of alcohol for a long time, that he has gaseous distention of the stomach and bowels, and that there is marked diminution in the size of the liver, leads us to the conclusion that he has cirrhosis of the liver, and that the symptoms of which he complains are dependent upon gastric catarrh. Such a distention of the stomach and intestines is perhaps the earliest symptoms of cirrhosis of the liver; it appears before vomiting of blood, hemorrhage from the bowels, before any noticeable change in the size of the organ; indeed, before any of the usual symptoms of that affection.

Treatment.—The only thing to be done, as far as the liver is concerned, in the way of treatment, is to stop taking alcohol. For the gastric catarrh, after stopping the use of alcohol, it is important to regulate the diet, being careful that only so much food is taken as can be retained, and of such kind as will be least liable to offend the stomach. Such a regulation of diet must be rigidly adhered to if the gastric catarrh is to be controlled. If the patient is willing to submit to the rigid rules required with reference to diet and abstaining from the use of alcohol, improvement may be expected.

As soon as food can be received without being rejected, there is nothing which is so effectual in correcting this gaseous distension of the stomach and intestines as nux vomica. A prescription which I very commonly employ in these cases of rum stomach consists of equal parts of the compound tinctnre of gentian and columbo, with from five to fifteen drops of the tincture of nux vomica in each dose, and taken before meals. An occasional aloetic and mercurial purge will also be beneficial.

VALVULAR LESION OF THE HEART.

The case before us has the following history: The man is thirty years of age, and says that he comes here because he has disease of the heart. When asked why he thinks he has disease of the heart, he replies by saying: "Because he feels a pulsation in the region of the heart;" in other words, he had been conscious of having had a heart during the last twelve years. Twelve years ago, or a little more, he had his first attack of acute articular rheumatism, and was sick in bed three or four months. He has had seven or eight attacks since, and each one has lasted for some time, one continuing for over six months before there was any marked improvement.

The first thing that attracted the patient's at-

tention towards his heart was the palpitation, or "pulsation," and it became so annoying that it interfered with his work. When he turned around quickly a "kind of dizziness" came over him. He has been steadily growing worse with reference to these symptoms, but more particularly during the last two years. Of late there has been increased disturbance of the action of the heart, and he has suffered from vertigo more than usual. He knows of no special reason why his symptoms should have increased particularly during the last two years, unless it was due to the fact of his having had an attack of rheumatism about two years ago. Within this time, however, he has had "chills and fever," and, while sick, his heart troubled him very much, and has continued to trouble him more than before since that attack, especially on going upstairs. He has had swelling of both feet, the œdema, however, extending no higher than the ankles. He has not had any distnrbance of the stomach; no disturbance of vision, except transient and in connection with the vertigo; and has never had cough and expectoration. His pulse is regular, and has a slight jerking character.

Comments.—From the history of the case alone, it is quite probable that this man has organic lesion affecting the aortic valves. The reasons for suspecting that condition are, that he has had frequent attacks of vertigo, which rarely accompanies mitral lesion. This symptom almost always accompanies aortic lesion when there is considerable hypertrophy of the left ventricle. Again, he has not had cough and expectoration, a fact which points to aortic rather than mitral lesion. For, a mitral lesion continuing twelve years without some evidence of bronchitis, would be rare. One good reason for suspecting that it might be a mitral lesion, is the fact that it was developed while young. His pulse is not characteristic of either aortic or mitral disease. So far then as the history can assist us, it favors aortic lesion, and we will now determine by physical examination whether our suspicion is well founded.

Physical Examination.—On *inspection*, it will be seen that his countenance does not indicate a very great deal of suffering. It will also be noticed that there is an increased area of the apex beat, and that it is carried to the left and as high as the fourth rib; there is also a slight pulsation of the carotids. Upon *palpation*, it is found that the cardiac impulse is more forcible than normal.

On *percussion* it is found that the area of normal cardiac dulness is much increased. From the fact that there is an increased area of apex beat, from the fact that it is carried considerably to the left, and that the cardiac impulse is more forcible than normal, and that there is increased area of dulness n the precordial region to the left, we are led to he conclusion that there is hypertrophy of the left heart.

On *auscultation*, a blowing sound is heard, synchronous with the first sound, has its greatest intensity at the apex, is conveyed to the left, and is heard behind.

A slight murmur is also heard at the base, and is conveyed into the carotids. There is some question, however, as to whether the latter murmur is conveyed from the apex or belongs to a lesion at the aortic valves. It seems to possess a different character from the murmur heard at the apex; and from the additional fact that it is heard in the carotids, I should be inclined to regard it as a murmur indicating organic lesion at the aortic orifice. We have, then, in this case, aortic obstruction and mitral regurgitation. There is also hypertrophy of the left heart, with some dilatation of its cavity. There may also be some dilatation of the right ventricle, indicated by the œdema of the feet; but before deciding this point I should wish to examine the patient's urine.

The *treatment* of this case is for the most part purely hygienic. He should take iron daily. When there is failure of heart-power, as is evidenced by the œdema of the feet, digitalis may be of service. The better treatment in that particular, however, is to prevent failure of heart-power by avoiding *everything* which calls the heart into active service. Life in the country is better for him than life in the city. He should, if possible, live in a climate where there is the least liability of having another attack of rheumatism. For, after one attack of rheumatic endocarditis, every subsequent attack renders the case worse and worse, until finally the heart gets into an unmanageable condition and goes over to complete failure of the right, when there will be no hope of affording permanent, perhaps not even temporary relief.—*Med. Record.*

REMOVAL OF MECKEL'S GANGLION FOR FACIAL NEURALGIA.

George W. Meyer, aged fifty-three, applied to me in January, 1877, for relief of a neuralgia of the fifth nerve of eighteen months' duration. The disease began with a slight pricking sensation in the roof of the mouth, left side. In a short time this was succeeded by the most intense pain, which followed the distribution of the superior maxillary nerve, and after the lapse of several months occasionally affected the inferior dental branch.

From the well-known character of the physicians who had been previously in attendance I had little to hope for in the way of medication, feeling fully assured that they had used every remedy likely to be of service to him.

I at once proposed to exsect the nerve, but the proposition was declined, and I set to work to devise measures of relief.

The patient had become emaciated from the ef-

fects of this ever-present and intensely agonizing pain. He was unable to attend to his business, and, discouraged with life, he was well nigh at the point of desperation.

I used in succesion all the measures likely and unlikely to prove either palliative or curative, including quinia in large doses, and in small doses combined with iron, deep injections of chloroform, and also of carbolic acid, hypodermic injections of morphia, and of atrophine, together and separately, Galvanism had been used by a previous attendant, but with no success; counter-irritation only aggravated the trouble; croton choral hydrate gave slight but transient relief.

For days and weeks and months this man walked the floor of his room, the victim of a pain constantly present, but which, in frequent paroxysms of intensity, compelled him to assume all the shapes and figures of a professional contortionist. Nothing but a narcotism dangerous to life itself gave him any immunity from suffering, and this was succeeded generally by an aggravation of the pain.

At last he consented to an operation, and on February 27th I performed a modification of Carnochan's operation for exsection of the superior maxillary nerve, assisted by Drs. Pilcher, Rockwell, Jewett, Hamilton, and Leary. Ether being administered, the patient was seated with his back to a window. The incision began at the inner angle of the eye, on a level with the infra-orbital ridge, extending downwards about three-quarters of an inch then curved outwards and upwards, terminating at a corresponding point opposite the outer angle of the eye. This formed a small semi-circular flap, which, when dissected from the bone and turned upwards, laid bare the anterior wall of the antrum of Highmore, and the infra-orbital foramen. The leash of nerve formed by the division of the superior maxillary after leaving the infra-orbital foramen was now dissected from the under-surface of the flap, and a trephine five-eights of an inch in diameter applied to the bone, with its crown overlying the infra-orbital foramen, and its point on a line perpendicular to the same. A few turns of the instrument soon removed the button of bone, and the cavity of the antrum was brought into view. A reflecting mirror fastened upon my forehead lighted up the parts well, and no difficulty was experienced in cautiously breaking down the floor of the orbit with a small three-cornered chisel provided for that purpose.

Following the nerve along the infra-orbital canal occasionally stopping to suppress the hemorrhage from the infra-orbital artery, I finally reached the posterior wall of the antrum, which I perforated with a one-half inch trephine, thus exposing Meckel's ganglion. Here the hemorrhage from that portion of the internal maxillary artery which is contained in the spheno-maxillary fossa gave rise to some delay, but by patiently waiting and applying small pieces of sponge tied to whalebone the bleeding was controlled, and the operation completed by breaking down and removing Meckel's ganglion and dividing the orbital, spheno-palatine and posterior dental branches, and by means of a pair of small curved scissors dividing the nerve at its point of exit from the cranium through the foramen rotundum.

The hemorrhage having ceased, the parts were well cleansed and the flap brought down to its position and secured by seven silver wire sutures. The operation occupied about an hour.

The patient rallied well, union by first intention occurring except at the point where a ligature which had been applied to the infra-orbital artery passed out from under the flap. The sutures were removed on the sixth day, and the ligature came away on the seventh.

The operation, so far as the relief of the neuralgia depending upon the superior maxillary nerve, was a complete success. The patient's general health still continues to improve, but he occasionally complains of pain along the line of the lower jaw and in the lower teeth. Should this continue I intend to exsect a portion of the inferior dental branch.—*Dr. Fowler, Kings Co., N. Y., Med. Society's proceedings.*

ABSTRACT OF A CLINIC BY PROF. FLINT, BELLEVUE HOSPITAL, NEW YORK

ENDOCARDITIS.

Before introducing the next patient I wish to make a few general remarks on the inflammatory affections of the heart. Carditis is a subject of little importance, and need not detain us; but endocarditis is deserving of the closest attention on account of the very serious results which are so apt to follow it. It is a remarkable fact that this affection was utterly unknown until very recent times, and that its discoverer, the distinguished Bouillaud, is still living. Perhaps, however, it is not so strange, after all, that it escaped notice so long, since we never get acute symptoms with it except when it occurs in the rare form of ulcerative endocarditis. We are perfectly familiar with it now, in connection with rheumatism and Bright's disease, and yet even in acute rheumatism, when it sets in, there is no appreciable difference in the symptoms. We have to depend entirely on physical examination for its detection, and this art, as you are aware, has not been known long. The patient whom I now bring before you entered the hospital while suffering from acute tubal nephritis, but had no heart-trouble whatever. Afterwards it was noticed that he had, and the murmur heard was a mitral systolic one, loud, rough, and for the most part confined to the præcordium. It was never regurgitant (not being transmitted be-

yond the apex). Now we have a basis for diagnosis.

The history of the case is as follows. James G., 40 years of age, and a native of England, was admitted to the hospital about a fortnight ago. He is a gardener by occupation, and his family history is good. He acknowledges that he is a hard drinker (taking more or less liquor before breakfast), but denies that he has ever had venereal disease. His health was good up to the commencement of his present attack. Three weeks before that time he caught cold, and drank an unusual quantity of spirits. Somewhat later he noticed some œdema of the feet, and this extended until his whole body became water-logged. At the same time he suffered from headache, nausea, and vomiting; but he nevertheless continued working as well as drinking. The night before his admission he had a violent attack of delirium, three men being required to hold him in bed. He says that for six months past he has been passing a larger quantity of urine than normal, and that there has been no change in this respect of late. On admission, it was found that he was suffering from general œdema, but the chest-sounds were normal. The urine was markedly albuminous, and contained both large and small hyaline casts. Under the influence of active catharsis, and cupping over the region of the kidneys, the œdema rapidly disappeared. There was at once a marked improvement in his condition, and the delirium from which he was suffering when admitted gradually subsided. He was afterwards put on digitalis.

One week ago he complained of some pain in the chest, and on examination there was discovered a soft blowing murmur at both the apex and base of the heart. It was loud and rough, extending over the entire cardiac area. We have here the evidence of an acute endocarditis. In listening to the murmur you will notice the difference in the sound over the apex and over the body. This has no special significance, and is simply due to the different conditions in the different parts. The patient is doing well; but it is still a question in his case whether the acute affection did not supervene upon a chronic one. If the albumen does not soon disappear, we shall conclude either this, or that the present is one of those rare cases in which chronic Bright's disease succeeds to acute nephritis.

PERICARDITIS.

While speaking upon these inflammatory cardiac affections, I should like to have an acute case of pericarditis to show you, but, unfortunately, there are none in the house just now. Under these circumstances I shall have to do the best I can; and the patient whom I now present to you is one who had an attack of this affection a month ago. His history is as follows. William B., a native of Germany, 25 years of age, and a seaman by occupation. He was healthy up to three years ago, when he had a severe attack of rheumatism, lasting about a month. He had no pain over the præcordial region at that time. (Pericarditis, as you are aware, is more frequently associated with rheumatism than with any other disease, but it is also met with in Bright's disease, as well as in pleurisy and pneumonia). His present illness commenced one week before he was admitted to the hospital. This was another attack of acute articular rheumatism, and it first affected the ankles, then the knees, and afterwards the hands and fingers. Just before admission he noticed a pain over the præcordial region. It was at first dull, but afterwards very acute, and accompanied by dyspnœa.

It is noted in the history prepared by the house physician that the pain and swelling in the limbs were greatly relieved by the ride from his residence to the hospital in the ambulance, so that he was able to walk about the ward on his arrival here. This serves to show the benefit of what I may call methodic friction. When a joint is affected with acute rheumatism, great relief can be given by rubbing it with some lubricating liniment, at first with the lightest possible touch, and afterwards increasing the pressure applied until a very considerable amount of force can be used, to the great comfort of the patient. The ride in the ambulance, no doubt, had some such effect as this. At present the patient suffers from no dyspnœa, and the pain has almost entirely disappeared. On auscultation a loud, harsh friction-sound was heard all over the præcordial region, and also a soft blowing murmur at the apex, but not transmitted beyond. It may be laid down as a rule that when we have rheumatic pericarditis there is also endocarditis present. The treatment consisted at first of twenty grains of salicylic acid every three hours, together with counter-irritation over the heart. Afterwards the iodide of potassium was given. After the patient had been in the house a few days the presence of fluid in the pericardial sac was detected, as well as in both pleural cavities. One week ago the note in the history is that the murmur still continues, but that the fluid is gradually diminishing, while the patient's condition is greatly improved. Personally, I have not examined the patient as yet, and before doing so let me run over the physical signs of pericarditis. The friction-murmur which is one of these characteristic signs is always limited to the præcordium, or extends but very slightly beyond it. We are not told in the history that there was a large effusion in the pericardium in this case. Let us suppose that there was. We should then have found a total absence of heart impulse. On auscultation, the heart-sounds would have seemed all muffled and distant, and both the first and second sounds would have been very much alike. In such cases the first sound is always notably weak and valvular in character. Another indication of the affection is the area of dulness extending just over the area of the pericar-

dial sac, which is visible to the eye and appreciable to the touch, in the form of a pyriform tumor. These signs afford the proof of pericarditis and pericardial effusion. At the present time the symptoms have entirely disappeared in this case. In addition, there is very little fluid in the pleuræ now, and the patient is practically well. It is remarkable that I do not get any endocardial murmur whatever today; and I therefore conclude that this is one of those cases (an exception to the general rule) in which the murmur entirely disappears. This is due to the fact that the products of the inflammatory action lately present have all been washed away; and our patient is certainly to be congratulated upon such a desirable result.

JAUNDICE OF TWO YEARS' STANDING.

In this patient you see at once the yellow discoloration of the skin, as well as of the conjunctiva. You notice, also, the darkness of the color, which, though not deep enough to constitute what is known as "black jaundice," is sufficient to show that the affection has already lasted for some time. Icterus is merely a symptom; but it always indicates obstruction. The most common cause of it is a duodenitis, and among the others may be mentioned the pressure of various tumors on the biliary ducts. The patient's name is James P.; he is 51 years of age, and he was admitted three days ago. As far as I can make out, there is no history of acute duodenitis or of heptic colic; nor is there any evidence of the presence of a tumor. You may ask me, may this not be an affection of the liver itself? In this class of disease, however, there is, as a rule, no jaundice whatever. The rare affection known as acute yellow atrophy of the liver is an exception, but that is attended by numerous grave symptoms which are entirely lacking in the present case. The most probable condition here is a chronic inflammation of the duodenal mucous membrane; and I arrive at this conclusion by a process of exclusion, there being no history of gall-stones or of any sort of a tumor. The patient tells us that his jaundice has continued now for two years; yet his digestion and his general health are good, though the stools are rather pale in color. The obstruction, then, is evidently not complete, and, as there is no reason to believe that it has increased any of late, he will probably remain in his present condition for an indefinite period. In the mean time I should not advise to pursue any active course of therapeutics, but, as long as he continnes well and comfortable, simply adopt an expectant plan of treatment.

CIRRHOSIS OF THE LIVER.

Patrick C., aged 49, a native of Ireland, and a laborer. We find here a globular enlargement of the abdomen, with a sense of fluctuation. Hydroperitoneum, without any other dropsy, always points not only to an affection of the liver, but to one particular affection of that organ. We have no history of this case, but its etiology is all-sufficiently explained in one word,—"drink." Now let us put two or three questions to the patient. What have you been accustomed to drinking? "Spirits." Before breakfast? "Yes." How many glasses in the morning? "One, two, three, and sometimes four, according to circumstances." Then do you drink before dinner again? "No." Do you drink much water with your liquor? "Very little, and often none at all." Now, gentlemen, we have here a typical illustration of the connection that exists between the use of spirits thus taken and cirrhosis of the liver. If an individual wishes to indulge in ardent spirits and at the same time avoid cirrhosis, let him be careful not to take it either on an empty stomach or with but little or no water. The constant irritation from such drinking as our friend here has been accustomed to results, after a time, in a new formation (of fibrous tissue) which is probably of an inflammatory nature. Another effect that follows is impairment of the general nutrition, giving rise to emaciation, cachexia, etc.

In the way of treatment, the indication is to perform the operation of tapping just as soon as the quantity of effused fluid causes inconvenience to the patient. I would furthermore advise the repetition of the tapping as often as the abdomen increases again to an inconvenient size; since it can be done with impunity whenever there is a necessity for it. The time may come when the peritoneum will not fill up again; and I have myself observed this in occasional instances. I regard the treatment of cirrhosis by repeated tapping as much preferable to the active course of cathartics, diuretics, etc., which it is otherwise necessary to resort to.—*Medical Times.*

NEW YORK PATHOLOGICAL SOCIETY.

UNEXPECTED DEATH—FATTY DEGENERATION OF THE HEART.

Dr. Austin Flint exhibited a heart which he had not seen before that evening. It was not much enlarged in volume, the valves and coronary arteries were sound, and there was nothing found except the gross appearance of a certain amount of fatty degeneration. The history of the specimen was this: Some few days ago, early in the morning, two gentlemen drove in a carriage to Dr. Flint's house, and one of them said that his friend had heart disease, was afraid to walk from the curb to the office, and desired the doctor to come out and examine him. Dr. Flint did not think that there was any special danger in such an undertaking on the part of the patient, and the latter came in the office. The gait was slow and he manifested in manner and in countenance a great deal of anxiety,

Dr. F. found the heart palpitating. He satisfied himself that it could not be enlarged, that there was no valvular lesion, and informed the patient accordingly, assuring him that there was no danger, and that he should make his mind easy. He was instructed, however, to come again for another examination. which he accordingly did the day following. At this examination the heart was beating rapidly, the impulse did not give the impression of feeblenes, and there was a systolic murmur heard over the body of the heart, but not transmitted beyond the apex. The opinion of the previous day was repeated, and after receiving some general directions the patient left. Dr. F. had an urgent summons in the evening to which he could not respond, and Dr. Perry visited the patient. Dr. F remarked that there was one circumstance in the patient's history which did not however make the impression upon him which it should, and that was a period of unconsciousness after running upstairs. Dr. Perry obtained this history: The patient during the afternoon was seized with another fit of unconsciousness, which lasted for a few moments, during which time there was marked lividity. Dr. Perry, on his arrival, found the pulse not deficient in force, and beating with regularity. He recognized the murmur, but nothing else; gave a favorable prognosis, prescribed an etherial stimulant and left. During the same night Dr. P. was again summoned to find to his surprise his patient moribund, unconscious, and with scarcely any appreciable pulse. Of course in a short time the patient died. Dr. Flint, in the absence of any better cause for death, assumed that fatty degeneration existed, and yet during life, notwithstanding careful examinations, no auscultatory evidence of such a condition was found. The case was of interest not only in itself, but as proving that there is no danger, and yet even at the risk of a mistake such an assurance should not be denied to them. In answer to questions from members, it was further stated that there was no membranous effusions in the meshes of the columnæ; that a few weeks before death the patient suffered from shortness of breath.

Dr. Janeway remarked that fatty degeneration of the heart was blamed for more sudden deaths than it deserved. Especially was this the case in deaths from chloroform, the slightest amount of extra fat upon the surface of the organ being seized as the immediate cause of death.

Dr. M. P. Jacobi referred in this connection to a specimen of heart presented last spring, in which the cause was not explained by any distinct pathological reason; and Dr. Janeway called attention to specimens of heart containing air, likewise exhibited by him at a previous meeting.

CANCER OF THE STOMACH WITH ABSENCE OF PAIN.

Dr. E. C. Seguin presented a stomach removed from a patient whom he had seen in consultation with Dr. Thurman. The patient, aged 74 years, enjoyed good health until the summer of 1876, when she fell below par. She visited the Centennial, but went through it without a chair, thus showing a considerable amount of endurance for her years. After her return she suffered from dyspepsia, anorexia, and nausea. Dr. S. saw her Nov. 15th, The only symptom she then complained of was great weakness and marked emaciation. Dr. Thurman discovered a painless swelling in the left hypochondrium, just below the border of the ribs. From the absence of all positive symptoms this tumor also discovered by Dr. Seguin, was thought by both gentlemen to be impacted fæces. The swelling was manipulated and enemata given, and after a few days the mass seemed to disappear after the discharge of several scybalous masses. In the beginning of December the symptoms of dyspepsia became more marked. The first vomiting occurred only two weeks before death; was very slight in character. About this time there was regurgitation of food, mixed with a little brownish liquid. At no time was there any coffee ground vomiting. The emaciation progressed, the repugnance to food was very great, and the loss of strength was extreme. Shortly after the disappearance of the tumor in the left hypochondrium, there was another tumour near the median line and on a level with the other tumor, which was duly recognized as an independent affair and as a cancerous growth. The specimen was chiefly interesting in connection with its clinical history. The specimen on examination was mainly composed of cylindrical epithelium.

Dr. Briddon referred to a case of cancer of the stomach, in which there was no pain or vomiting, but in which the diagnosis was made from the progressive emaciation. He asked if absence from pain was uncommon.

Dr. Flint answered that the absence of marked pain was the rule.

Dr. M. P. Jacobi remarked that, before arriving at a diagnosis of such cases by exclusion, two diseased conditions should be taken into acount, viz.: the prodromic stage of leukæmia, and progressive pernicious anæmia.

Dr. Janeway mentioned a case of cancer of the stomach, the diagnosis of which he made by discovering the umbilicated nodules of cancer of the liver. As primary cancer of the liver is rare, and as secondary disease follows cancer of the stomach, the presumption is legitimate that the latter condition of things exists. In addition to this evidence, when a tumor of the stomach exists, the diagnosis is quite positive.

In regard to vomiting as a symptom, much might be said. He believed that it was most frequently associated with deposits in the neighborhood of the pylorus. In that situation the

peristaltic action of the stomach was seriously embarrassed. The contrary was the case with tumors in the line of the greater curvature—and hence, in those, absence of vomiting and pain was the rule.—*Med. Record.*

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

The annual meeting of the British Association for the Advancement of Science, was held in Plymouth. The President, Allen Thompson, F.R.S., a distinguished member of the medical profession delivered a very interesting address. His subject was the "Development of the Forms of Animal Life." He said, "The reflection forces itself up on us that we are just as ignorant of the mode of first origin of all the compounds of the inorganic elements as we are of that of living matter; and we may therefore be excused if we suspend all theory and conjecture until we shall be guided to more reliable hypothesis through the plain track of observation and experiment. But the practical applications of the increased knowledge of the origin of minute animal and vegetable organisms are very numerous. It is now proved beyond doubt that the origin of putrefaction and fermentation is dependent on the presence in the substances which are the seat of change in these processes, or in the surrounding air, of the germs of minute organisms of an animal or vegetable nature, and that the maintenance of the chemical changes in which these processes mainly consist is coincident with and casually (if not essentially) dependent upon the growth and multiplication of these organisms.

"Prof. Lister had the merit of being the first to apply the germ theory of putrefaction to explain the formation of putrid matters in the living body, and he has founded on this theory the now well-known antiseptic treatment of wounds, the importance of which it would be difficult to over-estimate. The success or failure of plans for the preservation of meat and other articles of food without question depends on the possibtlity of the complete exclusion of the germs which are the cause of putrefaction and fermentation; and their management must therefore be founded on the most accurate knowledge of these organisms, and the circumstances influencing the persistence of their vitality and the vigour of their growth. The theory of Biogenesis has also lately been the guide in the investigation of the causes of various forms of disease, both in the lower animals and in man, with the result of showing that in many of them the infective substance consists, in all probability, of germs of minute animal or vegetable organisms. There is very great probabilty, indeed, that all the zymotic diseases (by which we understand the various forms of fevers) have a similar origin. As has been well remarked by Baxter in an able paper on 'The Action of Disinfectants,' the analogies of action of contagia are similar to those of septic organisms, not to processes simply of oxidation or deoxidation. These organisms, studied in suitable fluids, multiply indefinitely when introduced in all but infinitesimal proportions. Thus they are, as near as we can perceive, the very essence of contagia."—*The Doctor.*

GRAVES'S DISEASE, (EXOPHTHALMIA) CLINIC.

BY WM. PEPPER, M.D., PHILADELPHIA.

We give this name to a group of symptoms, of which enlargement of the thyroid gland, protrusion of the eyeballs, and disturbance of the heart's action are the chief. It is not merely the thyroid enlargement which constitutes the disease, for you know that in many parts of the world goitre, even of extreme degree, is very common, and yet such cases are not to be regarded as in any way identical with Graves's disease. It will be found, in simple goitre, that the enlargement is progressive, and consists of a simple hypertrophy of the gland, unattended with either pulsation or thrill, and that there is an absence of exophthalmos and of cardiac disturbance. Moreover, the causes which lead to simple goitre are often endemic, as in the valley of Switzerland, although the affection also occurs in a sporadic form; but in such cases the peculiar influences which favor the development of Graves's disease are wanting. We can better appreciate these and other points upon a study of the present cases:

Mrs. J. L., 56, married, born in Germany. Has had twelve children, the youngest of them being at present 14 years old. Most of her labors have been difficult, particularly the last. She was much affected by the loss of her husband a few years ago, who died from the effect of gunshot wound received during the war. She has suffered from frequent leucorrhea, pain in her back, and other evidences of uterine disease. She has had rheumatism occasionally. Her menopause occurred two years ago, when she was fifty-four. Since that time she has noticed palpitation, choking sensations, blurred vision, and exophthalmos. She is of a very nervous temperament, and very easily frightened. She is dizzy every now and then. Blowing, anæmic murmur in pulmonary artery. Pulse 140. No valvular murmur. Thyroid gland enlarged. with pulsation and slight thrill.

Wm. S., æt. 17, born in Buck's County, Penn-

sylvania. Had a severe attack of typhoid pneumonia at about the age of fourteen. Six months later he narrowly escaped drowning, and received a severe nervous shock. Last summer he had a mild sunstroke. After his escape from drowning he became very nervous and easily agitated. In six months, palpitation of the heart appeared, and then marked enlargement of the thyroid gland. He has suffered frequently from sudden attacks of the thyroid, with thrill and pulsation. Heart's action much disturbed, but no valvular murmur; slight exophthalmos.

The causes which produce this disease are excessive care, anxiety, overwork, particularly if combined with deficient or improper food. In some cases, it would certainly seem that the disease was induced by pregnancy or confinement, and in not a few cases, in females, the predisposing cause seems to be severe uterine disease or menstrual disorders. I have spoken of the three symptons, but a glance at the cases will show that these symptons are present in different degrees in different cases. For instance, the enlargement of the thyroid gland may be moderate or even slight; or, on the other hand, it may be truly enormous. In these latter cases there may be occasional sensations of strangling or of great difficulty in swallowing, from the pressure of the enlarged gland upon the trachea or œsophagus. It usually happens that the enlargement varies from time to time. As a rule, both lobes are equally affected, though one may be somewhat larger than the other. The thyroid gland is highly vascular, and the arteries leading to it are very tortuous. When, then, there is violent arterial over-action we would be prepared to find pulsation and thrill over the gland. These phenomena are frequently present in Graves's disease; in some cases they are present at times only, while in other cases they may be absent throughout. The characters of the thyroid enlargement point strongly to the view that, it is due to a dilated and enlarged condition of the vessels with some hypertrophy of the glandular and fibrous tissue, and possibly with a varying degree of interstitial serous effusion. In connection with this we must note that there is frequently violent throbbing of the carotids and of their branches.

The exophthalmos is no less varying in its intensity; in some cases it is so slight as to attract but little attention; while in others it is so extreme that the globes cannot be covered by the lids, and it becomes necessary to protect them from injury by exposure to air and dust. The protrusion seems to be due to the distention of the vessels of the post-ocular tissues, with serious infiltration, and perhaps some hypertrophy of the cellulo-fatty tissues behind the globe.

The disturbance of the heart is the most constant, and is frequently the earliest of the symptoms. It also varies much in degree. There is rarely any organic disease at first, though after excessive palpitation has long existed, excessive hypertrophy may supervene. The action of the heart is rapid—90 to 130 per minute—and is liable to paroxysms of irregular palpitation, sometimes from very slight causes. Owing to the anæmia which usually coexists, it is not unusual to find marked anæmic murmurs at the base of the heart, along the course of the pulmonary artery, and over the jugular veins in the neck.

The diagnosis of Graves's disease can present but little difficulty if attention be paid to the characteristic features above indicated. It is really a very curable affection in many instances, provided it come under treatment at an early stage, and the hygienic conditions can be rendered favourable. Even when cure cannot be effected, the troublesome symptoms can be held in check. In advanced cases, or when the cause persists, the symptoms grow more grave. Anæmia becomes intense, dilatation of the heart, with degeneration of its muscular fibre ensues, circulation fails, dropsy supervenes, and death follows from exhaustion and general anasarca.

In the treatment the greatest care must be given to the removal of the causes, and in securing rest, good food, change of scene, and entire release from cares, The various functions must be carefully attended to, and local disorder in females removed by suitable treatment.

The remedies upon which I rely with most confidence are digitalis, iron, ergot, and bromide of potassium. These are required to meet the different indications, and will, therefore, be called for in different proportions in different cases. Digitalis is the most valuable remedy for controlling the functional disturbance of the heart. It may be given freely (gtt. x. to xv., three or four times a day), and continued for long periods at a time. Iron is absolutely essential when anæmia exists, as is frequently the case; and when this condition is marked large doses of iron should be administered, in whatever form is most acceptable to the system. Ergot has proved of much value in my experience. Not only is it given internally, with a view of influencing the contractility of the walls of the arterioles, but we have obtained most excellent results from the injection of diluted ergotine into the substance of the enlarged thyroid glands. The needle may be introduded to the depth of half an inch or an inch, and from six to ten minims of a solution, containing ninety-six grains of ergotine to the fl. ℥ i. of distilled water injected. Bromide of potassium is frequently called for, partly on account of the general nervous condition, but chiefly to assist the digitalis or ergot in controlling the irregular action of the heart and arteries.—*Med. Record.*

TETANUS.

TREATMENT OF, BY PROF. H. C. WOOD, PHILADELPHIA.

This is the same man that I lectured on last week; a case of pronounced tetanic seizure. He has been entirely relieved of his severe symptoms by treatment, but is still in a semi-stupid condition; whether this condition be the consequence of exhaustion, or the effect of the large doses of choral and the bromides, or be due to an effusion into the brain, I cannot yet with certainty say. The patient, as you can see, has improved wonderfully under nourishing diet and medicinal treatment. The cerebral congestion has been much reduced by the application of blisters to the nape of the neck.

Now I take this opportunity to speak to you at some length on the proper treatment of tetanus. In treating any disease, the first step should always be to find out exactly what you want to do. You must study with care the dangers of the disease in question; try to discover whether the complaint be self-limited or not. Tetanus has not a definite course to run, and it should therefore, be possible to control or shorten it. How does tetanus kill a patient? There are generally two ways in which death occurs; either from stoppage of respiration, caused by general tetanic spasm, stiffening and contracting the diaphragm and restricting the chest walls, or more usually, from the profound exhaustion brought on. The contracted muscles of the jaws and throat interfere, too, with alimentation, and hasten the fatal result. To come down to the bottom facts, then, in the generality of instances the inability to take food leaves the enormous convulsive wear and tear of the muscles unprovided against The all-important treatment of tetanus, therefore, resolves itself into careful and prompt nourishment of the patient. The feeding must be systematic, and must be carried on at short intervals, every two or three hours during day and night, unless the patient is able to sleep, in which case the interval may be lengthened to four hours during the night. In severe cases solid food must be avoided; the mere effort to swallow may produce a fit; and then you can readily imagine how serious would be the immediate result should the convulsion surprise the patient with a large bolus of food in the throat. We must, therefore, rely on liquid food. Milk is by far the best routine diet. Beef tea and beef essence may afford excellent temporary stimulus, but they neither of them possess much staying power. In addition to milk, raw or pulped meat, farinaceous foods, soaked crackers and bread, etc., may be employed. I think very highly of pulped meat. Take a piece of good, juicy beef, out of the rump, lay it on a bread board and scrape it thoroughly with a knife. In this way all the pulp of the meat is extracted and the indigestible fibre left behind. The results of the scraping may be given in the form of croquets, or mixed with brandy and sugar, Be sure, too, that you don't tell your patient that you are giving him raw meat; otherwise you may have difficulty in getting him to take it. Then, absolute quiet is necessary, Every paroxysm is a period of intense work, and so rest is peculiarly demanded. Nobody must be allowed to come into the room, and the nurse must wear carpet slippers, and do no talking. The room, too, had better be darkened. As regards medical treatment, alcohol must be given in nutritive doses, not as a stimulant; therefore, give it in small quantities with the food, in milk, or in the shape of raw eggs beaten up with wine. Among drugs there is scarcely any remedy which has not been used, and I have no doubt that some physicians think they are all about alike in value; I am satisfied, however, that proper treatment is productive of good. Some patients, indeed, will get well and some will die, treat them as you may. There is, however, a residuum of cases which proper treatment at the proper time will save. In choosing our remedies, then, what do we want? Evidently something that will lessen the motor action of the spinal cord, allay undue sensibility, and force sleep. I use, in their due place, six drugs; chloroform, ether, opium, nitrite of amyl, the bromides, and cannabis indica. The homœopaths have recommended strychnia, but, as might be expected, it only increases the spasms. Some have used belladonna, but I think that as a stimulant of the spinal cord it does harm. In protracted cases, of course, the remedies have to be changed from time to time. Three of those I have mentioned are brief, and rapid in their action; viz.: chloroform, ether and nitrite of amyl. Their effects pass of very quickly. As the spinal cord is continually irritated in tetanus, you would have to administer nitrite of amyl every five or ten minutes to get any lasting effect. The verdict is, of course, against any such improper use of the drug. Its only proper use is to get a temporary effect in very severe cases. Therefore don't employ it as the main treatment, but only as an auxiliary. So, too, with chloroform and ether. Chloral and the bromides are the best known depresso-motors. It is often very useful to combine several remedies in your treatment of the disease; you must, however; not give them all at the same time. I would advise something like the following plan: Bring the patient well under the influence of the bromide of potassium, by an initial dose of half an ounce, followed by half a drachm every three or four hours. Then, to obtain sleep at night, administer, at bedtime, thirty grains of chloral with some opium. Nitrite of amyl should be employed from time to time, to stop violent spasms. If bromism

comes on, you may substitute cannabis indica for the bromides; be sure, however, that you employ a trustworthy preparation of that drug. A great deal has been said and written concerning the so-called *traumatic* treatment in this disease, in the shape of blisters applied along the spine. This seems to me like adding a new peripheral irritation to one already existing there. A blister on the nape of the neck is of great value in reducing cerebral congestion. But I am really afraid of the heroic treatment. Some, too, have highly advised the continued application of ice to the whole length of the spine. I doubt whether even the steady use of ice will affect the spinal cord. I have made some experiments myself, to test the penetrability of cold applications to the external surface of the body. The application of ice to the head of a cat, for example, will affect perceptibly the base of the brain, but the mass of bone and muscle which covers the spinal cord precludes, as I should think, the possibility of any profound impression of cold there. With respect to nerve stretching, which has also been tried, I am not a believer. If, indeed a nerve be constricted in a mass of cicatricial tissue, it would be perfectly right to cut down upon the constricted part and free it; in other cases I should be in fear of a severe neuritis being set up by the operation.

The man who is before you has had no spasm for a week, and is now entirely rational, with but slight mental hebetude, and very little delirium during sleep. I attribute this result mainly to the blister, medical treatment, and systematic feeding at short intervals. His mind has been always clearer after a blister to the neck has begun to draw.—*Med. & Surg. Reporter.*

TUMOUR OF THE LOWER JAW REMOVED WITHOUT EXTERNAL WOUND.

Ellen M., aged 33, was admitted into Mr. Maunder's Ward, at the London Hospital, on June 4. About December last, the patient first noticed a small swelling of the gum, near the back teeth, on the right side of the lower jaw. She thought it was merely a gumboil; it was neither tender nor painful, and its colour was of a reddish tint. When the tumour had been growing for about two months, the patient sought advice of her doctor, who strangulated it with catgut, and a piece of the growth came away. This operation was performed a second time, and another piece removed. After this two decayed teeth were extracted. The skin opposite the seat of the tumour had been painted three times daily with tincture of iodine, which seemed to retard the growth. The mass was always hard, and the patient could even masticate portions of her food on this side. Occasionally it bled a little.

On admission, the right cheek of the patient buldged outwardly, and, on looking into the mouth, a reddish growth, the size of a large walnut, occupying the site of the molar teeth, was visible. It was painless, hard and smooth, much resembling gum-tissue.

On June 8, the patient being under the influence of an anæsthetic, and conveniently placed in a dentist's chair, the mouth was held open with a gag. A knife with a rounded end, guided by the tip of the left forefinger, was made to divide the soft parts over the anterior margin of the ramus just about its junction with the base of the bone, and then the periosteum and muscular attachments on both sides were separated with a raspatory. The bone was next partially divided with a small saw, and the section was completed with cutting forceps. The second bicuspid tooth, displaced by the growth, was now extracted, and the body of the bone was cut perpendicularly at this spot by means of the saw and the forceps. After the knife had been passed along both sides of the fragment to divide the mucous membrane and other structures down to the bone, the raspatory and forefingers then completed the operation. Thus the tumour and fragment of bone, stripped of the periosteum, came away in one piece. The facial vessels were not divided, and the bleeding was unimportant, no artery requiring ligature.

Remarks.—Mr. Maunder said such was the history of a case of fibrous epulis. It was benign, but recurred unless the bone surface whence it grew was also removed. Further, the growth was generally pedunculated, but in this instance it was sessile. Seven years ago (March 9, 1870) he had, he said, demonstrated in that theatre the feasibility of removing, without external wound, large lateral portions of the lower jaw, the seat of the tumour. The patient on that occasion was ten years of age, referred to him by Mr. Owen, of Leatherhead. From that child he had taken away an extent of bone comprised between the middle of the left ramus and the site of the right canine tooth. The second case similarly treated was sent up by Dr. Dove, of Pinner. Both patients have since been often seen in capital health, and he felt justified in stating "that the practice of our art will have one horror less for a patient, who can be assured that no unsightly scar will disfigure his face." He need scarcely suggest that the face of the female should be most scrupulously saved from disfigurement. Neither was it necessary to point out the distinctive characters of the above operation as compared with that of a comparatively trivial kind for the extraction of a sequestrum already nearly accomplished by nature. Fifteen years ago he had seen the late Mr. John Adams remove the whole lower jaw in a state of necrosis; and three years ago he (Mr. Maunder) had taken away in one piece rather more than the body of

this bone, necrosed. Both patients were getting new bone generated as a substitute for the original, at the date of operation.—*Lancet*, June 23, 1877. *Med. News & Library.*

THE USE OF THE TREPHINE IN DEPRESSED FRACTURES OF THE SKULL (*The British Medical Journal*, July 21, 1877).—Dr. Robert S. Hudson, after alluding to the change in surgical opinion which has occurred since the time of Pott, and to the brilliant results which that surgeon obtained by the use of the trephine, proceeds to question the propriety of that change, and asks that the surgical practice of the mining districts around Cornwall be given its due weight in the consideration of the question. For many years the operation of trephining for depressed fracture of the skull has been of weekly, almost daily, occurrence, and, according to Dr. Hudson, a very large percentage of the cases recover. If death ensue, there are generally obvious causes to account for it, such as diffused injury with laceration of brain-substance, and fractured base; success usually depends on an early operation, as soon as possible after the accident. He sums up his remarks as follows:

"1. Surgeons practising in the mining districts around Redruth and Camborne have had, especially in former times, unusual opportunities for the study of head-injuries,

"2. In compound fractures of the cranium, it has been the invariable practice of the most experienced to elevate depressed bone by means of the trephine or Hey's saw, without waiting for symptoms of compression or irritation.

"3. It is believed by those surgeons that no danger whatever attaches to the operation *per se;* pyæmic risks are unknown; and recovery is the rule after trephining operations.

"4. So firm is popular belief in the efficacy of the trephine, that a surgeon who hesitated to employ it, under the plea of waiting for symptoms, would assuredly suffer in reputation, if, in the event of death, he were not put on his trial for manslaughter.

"5. Hospital statistics place herniotomy among the most dangerous operations; but the statistics of hospital surgeons in their private practice show to a demonstration that an operation for the reduction of strangulated hernia is practically harmless, even when it is necessary to open the peritoneal sac, and that the risk is directly proportionate to the length of the ignorant delay which has been allowed to exist previous to the operation. (Holmes's System of Surgery, vol. iv. page 692.) Although the parallel is not in every respect a complete one, we employ the trephine at the earliest possible period, and aim at preventing mischief by removing all sources of irritation.

"6. No matter how deeply prejudiced against the trephine our young surgeons may be when fresh from the schools, a few years' experience generally dispels the illusion; they become converts to the practice of the district, and cease to look on its employment as antiquated surgery."

In *Guy's Hospital Reports* for 1877, Mr. Davies-Colley contributes two interesting cases in which the trephine was successfully employed, and adds, "These two cases support the rule which most of our text-books either miss or fail to impress, that in punctured fracture of the skull it is the surgeon's duty to trephine at once, without waiting for symptoms of compression or irritation."—*Med. Times.*

METHOD OF ARRESTING HEMORRHAGE AFTER EXCISION OF THE TONSILS.—In removing the tonsils with the guillotine, it is important to remember that the organs are situated obliquely, like the pillars of the soft palate; more pressure should be made upon the lower than on the upper border of the instrument, and the tonsil will then be readily seized. It is better not to attempt to remove the whole of the organ, for after the removal of a portion the rest will atrophy, and removal of the whole is liable to be followed by dangerous and very obstinate hemorrhage. The hemorrhage may be due to the existence of inflammation at the time of operating, which inflammation also has a tendency to make the substance of the organ friable, so that it will have to be removed in small pieces; hence it is always advisable to defer the operation until the inflammatory stage has passed.

The great danger of hemorrhage, however, lies in the possibility of opening into the rich venous plexus, which lies at the bottom of the tonsillar fossa, and which is very easily wounded when the tonsil is removed entire. The hemorrhage from this source is sometimes extremely profuse, and is kept up by the movements of deglutition and spitting. The bleeding is not always primary, hence it is necessary to keep the patients under observation for a time. Sometimes it recurs after it has been once arrested. All the usual methods of checking the bleeding are unreliable, with the exception of direct compression made by the finger of the surgeon. The finger should be introduced into the mouth and applied directly to the wound, while counter-pressure is made from in front. This position must be maintained for several minutes, notwithstanding the attacks of suffocation, the efforts at vomiting, and the cough which the method excites. The hemorrhage is generally arrested at the end of two minutes. Dr. Panas, of the Hôpital Lariboisière in Paris, has on three occasions been called on to stop considerable hemorrhages from this cause, and succeeded in promptly arresting them by this procedure.—*Medical Record*, August, 1877.

VASO-MOTOR MECHANISM.

Dr. Bowditch, in his report on the Recent Progress of Physiology (*Boston M. and S. J.*), says that Huizinga has concluded that the vaso-motor apparatus consists of—

1. Local ganglia presiding over the rhythmical contraction of the vessels.
2. Vaso-constrictor fibres (spinal) going directly to the arteries.
3. Spinal nerve fibres inhibiting the local ganglia.
4. Inhibitory fibres from the skin to the neighbouring ganglia.

A local irritation of the skin may cause either vascular dilatation through 4, or vascular constric- through 2. Which result is produced depends upon the locality, and the intensity of the irritation.

Masius and Valnair regard the spinal vaso-constrictor fibres (2) as acting through the local ganglia instead of directly on the vessels, and they admit the existence of exciting as well as inhibitory fibres, running from the skin to the neighbouring ganglia.

All recent investigators assume the existence of nerve cells in or near the vascular walls, to account for the recovery of their condition of tonic contraction after section of the spinal nerves, but histologists have only rarely succeeded in bringing evidence in support of this assumption.

As, however, we find in the walls of the small intestines a plexus of nerve cells and fibres which seem to preside over the movements of that organ, it is not improbable that the blood-vessels may be subjected to similar control.

Ostroumoff has shown that this peripheric vaso-motor apparatus, whatever may be its structure, is able to hold the blood-vessels in a state of tonic contraction after division of the spinal nerves.

The theory that the spinal nerves contain two anatomically distinct sort of nerve fibres has been adopted by nearly all recent investigators to explain the fact that stimulation of these nerves may be followed either by vascular constriction or dilatation. Onimus has, however, been led to the conclusion that inhibitory phenomena resulting from the stimulation of a nerve, do not necessarily prove the existence of special inhibitory fibres in that nerve. He found, in the first place, that a single moderate irritation of the vagus, instead of arresting the heart, produced a contraction of that organ; also that when in a curarised animal the heart-beats have been reduced to forty or fifty per minute, it was possible, by irritating the vagus, or the heart itself, with induction shocks at the rate of sixty per minute, to compel the heart to contract synchronously with the electrical stimulation.

Onimus therefore concludes that when electrical irritations are applied to a nerve at a rate approaching that at which the impulses follow each other along the nerve in its normal condition, the stimulation produces a state of activity in the organ to which the nerve is distributed, but that when the rate of the irritations differs too widely from that of the normal impulses, a condition of inhibition is brought about. In accordance with this theory the production of vascular dilatation by slow rhythmical irritations of a spinal nerve, as observed by Ostroumoff, depends upon an inhibition of vaso-constrictor fibres.

This theory affords no explanation of the fact that while tetanic stimulation of a freshly cut nerve causes vascular constriction, the same stimulation applied to a nerve several days after its division has the opposite effect. Moreover, the vaso-dilator fibres seem in many cases to run in channels anatomically distinct from those of the vaso-constrictor fibres. For instance, the chorda tympani seems to supply exclusively vaso-dilator, and the cervical sympathetic vaso-constrictor fibres, to the sub-maxillary gland and the tongue. To cases of this sort, the theory of Onimus is hardly applicable.

Collateral Innervation.—When vascular tonicity is restored in a region which has been separated from its nerve centres, the explanation usually given of the phenomenon is that the terminal apparatus has assumed, in the absence of impulses coming from the central nervous system, a higher degree of activity than it formerly possessed. Stricker has, however, shown that this is not the only method by which such a result may be reached. He concludes from his experiments: First, that each vascular region is supplied by many vaso-constrictor nerves, which leave the cord at different places; secondly, that after division of the cord between the lumbar and dorsal regions, the restoration of vascular tonicity in the hind limbs is effected by the vaso-constrictors, which leave the dorsal cord above the point of division. He considers it probable that these vaso-constrictors have their centres in the spinal cord (or in the brain), and that they are not of themselves too weak to maintain the tonicity of the vessels which they supply, but that after division of the cord, they gradually acquire greater power. Stricker proposes the term "collateral innervation," to express this process.—(*The Doctor*).

THE DIRECT METHOD OF ARTIFICIAL RESPIRATION.

Dr. Benjamin Howard, of New York, read a paper on this subject (*Brit. Med. Association*), in which, having pointed out what he believed to be the defects of other plans, described his own. In this, the "direct method," in order to dispose of accumulations in the stomach or chest, the patient

being turned face downward, a firm bolster beneath the epigastrium made that the highest, the mouth the lowest point. Pressure being made on the back, the object was accomplished by both ejection and drainage. The patient, stripped to his waist, being quickly turned upon his back, the bolster was placed beneath it, making again the epigastrium and anterior margins of the costal cartilages the highest points of the body, the hips, shoulders, and occiput barely resting on the ground. The patient's wrists were seized, and the utmost possible extension being secured with them crossed behind his head, they were pinned to the ground with the left hand, so as to maintain it. With the right thumb and forefinger armed with the corner of a dry pocket-handkerchief, the tip of the tongue was withdrawn and held out of the extreme right corner of the mouth. (If a boy were at hand, both wrists and tongue might be confined to his care.) In this position two-thirds of the entrance to the mouth were free. The epiglottis, by this backward curvature of the neck, was precluded from the pressure often caused by undue flexion. The head, as Nélaton urged, was dependent; the free margins of the costal cartilages were as prominent as they could be made. By crossing the wrists the latissimi dorsi were brought further into play than usual, and there was a fixed thoracic expansion, which Dr. Howard believed unattainable in any other manner. The epigastrum being the highest point, the diaphragm was neither embarrassed from pressure above nor from below. To produce respiration the operator knelt astride the patient's hips, and rested each thumb upon the corresponding costo-xiphoid ligaments, the fingers falling naturally into the lower intercostal spaces. Resting his elbows against his sides, and using his knees as a pivot, the operator threw the whole weight of his body slowly and steadily forward until his mouth nearly touched the mouth of the patient, and while one might slowly count one, two, three; then *suddenly*, by a final push, he sprang back to his first position on his knees; remain there while one might slowly count one, two; then repeat, and so on about eight or ten times a minute. The resiliency of the ribs ensured an instant rebound to the point of departure. The operation was not fatiguing, the force employed being the weight of the operator, who remained in an easy position, with alternations of complete rest. It could be practised by anybody anywhere, before or after division of the funis; in a bath, bed, or boat; and friction, electricity, insufflation, or tracheotomy could be practised simultaneously without inconvenience.—(*The Doctor*).

IMPOSITION OF INSURANCE COMPANIES.—The *American Medical Weekly* says, "One of the great evils and nuisances at the present time is the frequent application of life insurance companies to physicians for gratuitous opinions as to the capacity and efficiency of medical men applying for the position of medical examiner. It is time for the profession to cut short this system of polite mendicancy. The information sought is solely for the benefit of the insurance company and should never be given unless a fee of at least five dollars be transmitted with the official request. Many companies assert that the information is asked of a physician for the benefit of his professional brother. This is only adding insult to injury; it is assuming that physicians can be so stupid as to believe any such fraudulent statement. Stop the nuisance; insist on the fee or refuse the information for which the company disreputably begs."

TREATMENT OF SORE-THROAT. — The local application of a saturated solution of nitrate of silver in glycerine once in ten days has been recommended in Bellevue Hospital. The theory was that an acute inflammation had a tendency to get well, whereas a chronic inflammation had no such tendency. The object was to substitute an acute for a chronic inflammation, and the inflammation caused by nitrate of silver recovered much quicker than that caused by most of the other caustics. Then use a spray or gargle of common salt-water three or four times a day. Occasionally an anti-septic should be added, and the best was said to be oil of cinnamon, wintergreen, pepper, &c. These oils all contain carbolic acid. Twenty drops of the oil of cinnamon added to a carbolic acid solution destroys the smell and rather increases its efficacy; certainly does not detract from it.

It was maintained by the visiting physician that enlargement of the bronchial glands was secondary to irritation in the throat; hence the possibility of such sore-throats becoming the starting-point of tuberculous development in the lungs must always be taken into consideration. It was also said that, in a majority of cases in which enlargement of the bronchial glands was found at *post-mortem*, it would also be found that the patient had suffered from catarrh of the nose when alive.—*The Doctor.*

POST PARTUM HÆMORRHAGE—NEW METHOD OF USING PERCHLORIDE OF IRON.—Dr. Jas. Brisbane (*London Lancet*) in cases of port partum hæmorrhage applies to the bleeding surface of the uterus a sponge soaked with tincture of iron. The blood coagulates, the uterus contracts and the patient is out of immediate danger. At the following visit the sponge is found in the vagina. All the apparatus needed is a two ounce vial of tincture of iron and a sponge. In all the cases thus treated —four—the results were all that could be desired. —(*Detroit Med. Journal*).

DISEASES IN WHICH GALVANISM IS USEFUL.—Lead paralysis will not yield to faradization after a certain period has elapsed, though the continuous current (from a many-celled battery) will stimulate muscles to contraction when the interrupted (faradic) current fails; and after the use of the continuous current for a time the faradic current may be used successfully. In this disease, and in infantile paralysis, success may be expected if the treatment is begun early. No time must be lost.

Rheumatic and hysterical paralysis are often speedily cured by faradism, but cases of the latter kind will sometimes disappoint the physician by the liability to recurrence of the symptoms; of course moral and medical treatment will be added.

Constipation, when dependent on deficient nervous power and paralysis of the bladder, sometimes yields to the faradic current.

Amenorrhœa has been most successfully treated by many physicians by electricity of great tension, obtained either from a fractional machine (Golding Bird) or from a faradic apparatus. It is stated that just as the interrupted current stimulates the menstrual functions, so the continuous current will check menorrhagia. (There is difference of opinion on this point.) Ergot of rye is so sure and speedy an excitor of uterine contraction that electricity has not been tried by many men. In a case of accidental hemorrhage in my own practice some ergot had been given, but the contraction of the uterus not appearing strong, I used faradism with the effect of the immediate expulsion of a fœtus and placenta, and shortly after of a very large clot. With a small pocket apparatus, such as Gaiffé's, and two electrodes, one flat (carried with wash-leather) for the abdomen, and the other shaped like a rectum-bougie for the uterus, it would be most easy to accelerate a tedious labor if ergot had failed, or if there were any reason for withholding it.

Several spasmodic diseases have been treated by electricity with excellent results, and especially in the case of writer's cramp, which requires the use of a continuous current applied to the muscles affected. Which muscles are affected the operator must first discern by carefully observing the limb while the patient makes effort to write. Observations made by Dr. Poore and others show the increase of power in muscles while a galvanic current is being passed through them. Shaking palsy is said to be improved by Radcliffe's positive charge, if used in the earliest stages.

Electricity should be tried in asphyxia, as it has been relieved so many times by the employment of a faradic current passed through the scaleni and the diaphragm. The upper electrode should be small (a brass ball covered with moistened wash-leather is best); and if it is branched with two terminals, the current can be applied to both sides of the neck at once, a moistened sponge connected with the other end of the battery being applied to the epigastrium.

Anæsthesia of hysterical origin has lately been relieved by Prof. Charcot, by placing plates of metal over the parts affected. Cases of this kind may be benefited by faradization. But it is scarcely necessary to add that local treatment alone is not likely to be of permanent use.

The results of galvanization of the seat of pain in neuralgia have been very encouraging. Ten to twenty cells of a Daniell or Leclanché battery are employed, and the sponges are applied so as to include the painful spots between them. The application should be made daily.—*Dr. Casey Coombs, in Medical Press and Circular.*

DIAGNOSIS OF HIP-DISEASES IN CHILDREN.—In examining a child suspected to have hip-disease, be careful to place him on something firm and flat; a table covered with a blanket, a leather couch, or the floor. If you use a soft bed, he will sink into it, and you will perhaps overlook even a considerable deformity. Do not be content with anything short of a thorough examination. Do not pretend to say whether a child whom you have examined with his trowsers on has or has not hip-disease. Let him be undressed, so that you can move his limbs without being hindered by his clothes. Girls past early childhood may be fully examined, if you use a shawl or a loose sheet to cover them. 1. You must look for abnormal posture of the limb or of the pelvis; 2. For stiffness of the joint; 3. Observe whether the glutei or the muscles of the thigh are wasted, or whether any, especially the adductors, are rigid; 4. Or whether there is any swelling about the joint or in the thigh or the iliac fossa; 5. Notice the relation of the trochanter to the side of the pelvis as compared with that of the opposite side; 6. Look to the length of the limb as compared with that of its fellow; 7. See how the patient walks, if he is able to do so; 8. If he have pain, learn its situation and its character.—*Howard Marsh, in British Medical Journal.*

REMEDY FOR BROMINE ACNE.—*The Doctor* says that a patient in St. Bartholomew's Hospital, who has bromine acne as a result of taking half-drachm doses of bromide of ammonium to stop her epileptic fits, has been relieved of the acne by the use of the following lotion:

℞—Sulphuris precip.,	ʒ iij.
Spir. camphoræ,	ʒ j.
Aquæ calcis,	ad. f ʒ iij.

Fiat lotio.

The meeting of the International Medical Congress was held in Geneva, commencing September 9th. The President was Professor Vogt; the Vice-Presidents, Critchett (England), Esmarch (Germany), Schnitzler, (Austria), Hardy (France), Worlomont (Belgium), Palasciano (Italy), and Sims (America).

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science

Issued Promptly on the First of each Month.

Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; J. M. BALDWIN, 805 Broadway, New York, and BALLIERE, TINDALL & COX, 20 King William street, Strand, London, England.

TORONTO, NOV. 1, 1877.

THE CONTAGIUM VIVUM THEORY.

In view of the recent very elaborate argument of Dr. W. Roberts, F. R. S., Manchester, delivered at the British Medical Association Meeting, last August, any utterance to the contrary will be regarded as of interest. We have followed Dr. Roberts through his admirable argument and we fully sympathise with the views advanced, based as they are upon recent actual pathological discoveries. We notice, however, a letter in the number of the LANCET of September 22nd, in which an utterance of Dr. Burdon Sanderson is quoted to the following effect, "that it can scarcely be supposed that the agent is a living organism," which is the active principle in septic liquids—and this substance, we may add, has been termed by Dr. Sanderson *pyrogen*, designating it a sort of chemical poison. His conclusions are said to have been based upon observations on 25 animals. Messrs Cunningham and Lewis, in their letter before referred to, claim to base their observations upon experiments with 170 dogs, and originally published in the tenth annual report of the Sanitary Commissioner with the government of India (1874), in which it is stated that "until it can be proved that living substances can withstand immersion in a fluid at a temperature of 212° Fahr., of some minutes duration, we have no hesitation in stating that the morbid phenomena which we have observed to follow the introduction into the animal economy of strained solutions of choleraic and normal alvine discharges, and of other decomposing animal substances, are not the result of infection with a material, the poisonous properties of which are dependent on its possessing vitality."

Messrs. Cunningham and Lewis further state "it is satisfactory to find that so eminent an exponent of doctrines regarding the causation of disease, as is Dr. Burdon Sanderson, has now arrived at similar conclusions, and that he has, on the present occasion submitted views for the guidance of the public health officers at home, so much in accordance with those previously arrived at, by the sister department in India; they quite agree that it would have been better for pathological science if such conclusions had not been so much overlooked, for the facts on which they are based are quite irreconcilable with the often too carelessly received assumption that the process of septic infection is dependent on the development of a living contagium." That Dr. Burdon Sanderson has come to regard the septic poison, called by him *pyrogen* as other than a living organism, is quite true; but we fear the gentlemen writing in the LANCET assume too much when they say that Dr. Burdon Sanderson's views have undergone any change necessary to bring them into harmony with their own. It is always very flattering to assume to have been the first to point out a new fact in science, but the fact of Dr. Sanderson having given the septic poison its specific name *pyrogen*, is a sufficient evidence of his recognition of its true character, Messrs. Cunningham and Lewis to the contrary notwithstanding.

The theory of minute organisms and the specific origin of disease in the last few years, has done much to give exactness to medical thought in the direction of causation and pathology of a large number of diseases hitherto but imperfectly understood. It would be impracticable to follow Dr. Roberts through the whole of his argument, hence we can only refer our readers to this most masterly elucidation of the modern theory of contagious diseases. Bacteria are minute organisms which, although small in size and simple in form, are possessed of wonderful vital endowments. Dr. Roberts associates the yeast plant and its allies, and all the numerous species and varieties of bacteria under the general designation of *saprophytes*—a term intended to include under one head all the organisms associated with the decomposition and decay of organic matter. He proceeds to show that bacteria, like other organisms, arise from pre-existing parent germs, and are the actual agents in all decomposition and putrefaction. By his experiments he substantiates the proposition that organic matter has no inherent power of generating bacteria,

and no inherent power of passing into decomposition; also that bacteria are the actual agents of decomposition, and proves that their source is always from unfiltered air or water, which, if true, suggests either some mode of protecting wounds from contact with unfiltered air, or the application of some agent capable of destroying these germs as they come in contact with a wound. The latter is the principle adopted in Prof. Lister's anti-septic method. In considering septicæmia, Dr. Roberts alludes to the poison resulting from the decomposition of animal substances known as *pyrogen*, which, when absorbed, produces fever. The patient has come under the influence of the septic poison, which it is the object of the anti-septic treatment to defend him against. Now he says, although *pyrogen*, or septic poison is the result of decomposition of animal substances, yet it is fully established that decomposition cannot take place without bacteria, and that bacteria are never produced spontaneously, but originate invariably from germs derived from the surrounding media.

Passing on to relapsing fever, he tells us that in 1872, Dr. Obermeier, of Berlin, discovered minute spiral organisms (spirilla) in the blood of patients suffering from relapsing fever, which discovery has since been fully verified by subsequent observations, and most strange "these organisms are found during the paroxysms, disappear at the crisis, and are absent during the apyrexial period." This he considers proof positive of the existence of a special disease germ, as a disturbing cause in fever. He next referred to splenic fever, concerning which he observed that the first trustworthy observation of the presence of organic forms in the infective diseases, was made in splenic fever. In 1855, Pollender discovered minute staff-shaped bacteria in this disease, which are short, straight and motionless. This discovery has been confirmed by Brauell and Davaine, Bollinger, Klebs, Tiegel, and lastly by Koch. The *baccillus anthracis* present in splenic fever has been found by Koch to be preserved and reproduced by spores, and may exist for any length of time in a very persistent manner in dwellings and other places where the disease has been.

This method of research by which cause and effect are so directly traced to each other, opens up a new era in practical medicine, and sends us off in a new direction in the wake of the pathologist, who must ever lead the van in true medical progress, for thereby we are enabled to have something like rational ideas about the nature, origin and spread of zymotic diseases—a kind of knowledge most valuable to the sanitarian as well as the physician.

THE LARYNGOGRAPH.

A method of investigation at once so accurate and reliable as the graphic has proved itself in the study of purely physical phenomena, was not likely to be overlooked in the investigation of phenomena connected with the healthy functions of the human body, and the departures therefrom in disease. Indeed, in point of minuteness and accuracy of detail, the graphic method has been to the registration of the animal functions, what the polariscope has been in the analysis of the secretions, representing definitely and directly the normal as well as the morbid or abnormal functions of the human body.

The practical results of the use of the sphygmograph in the examination of the pulse, and the detection of various diseased conditions, especially heart affections, has led to discoveries of great practical and theoretical interest and importance, so that by charts produced any skilled observer could read at a glance the nature of the affection, the stage of development and the degree of danger existing. A similar line of thought has been directed to the development of a means of applying the graphic plan to the observation of affections of the throat and lungs, resulting in the production of the Laryngograph, intended to indicate the influence of throat diseases upon the quality of the voice. The apparatus was first introduced as "Koenig's Flame Manometer," but was afterwards modified so as to be capable of responding to the slightest variation in sound, making it applicable to the study of abnormal conditions of the human voice. How far it may be able to serve the profession, in the early diagnosis of affections of the throat and lungs, remains to be discovered.

It is composed of a gas-jet, burning with a small flame, a mouthpiece terminating in a lenticular box or capsule, and a large cube, whose vertical sides are covered with mirrors, and which is revolvable about its vertical axis. The capsule is divided into two compartments by a very thin, tense, and impermeable rubber membrane. In one of these compartments the sounding-tube terminates, while the

other serves as a passage-way for the gas from the conducting-tube to the jet at which it is burned. The principle of its action is as follows :—On singing or speaking into this mouthpiece, sound-waves are produced by the alternate condensation and rarefaction of the air within the tube; the rubber membrane acquires a corresponding rate of vibration, and so modifies continuously the rapidity of the delivery of the gas to the burner, as to cause the flame to leap up and down in unison with the sound transmitted.

As the prismatic mirror is rotated, the motion of the flame, however slight, is rendered distinctly visible, which, by persistence of vision, the image of the flame is spread out into a broad, serrated band of light. The serrations vary with the character of the tone produced, as well as the degree of the diseased condition of the vocal chords. In the case of disease, the difference in the appearance of the image becomes so striking, that a skilled observer can form a correct idea of the actual state of the vocal organs. While the patient speaks or sings through the mouth-pipe, the physician, standing behind, observes carefully the changes produced in the figure reflected in the mirror. In a moderate degree of hoarseness, the serrations are but imperfectly formed, and are not regular and constant in appearance. The tongues of light are less clearly cut and shorter, in consequence of the range of vibration of the vocal chords being much smaller. In a severe degree of hoarseness, such as that attending the formation of tubercles in the lungs, syphilis, and chronic inflammation, with thickening or partial destruction of the vocal chords, the serrations are very irregular, owing to the partial immobility of the latter.

It is claimed that with a proper delicate adjustment of the instrument, the difference between a fine, well-cultivated voice and a defective one would be distinctly manifest in "the clear, regular and well-defined cut of the teeth of light in the case of the former, with every fluctuation in the intensity of the notes being distinctly visible."

A wood-cut which appears in the September number of the *Scientific American*, represents the apparatus in operation, and will convey a more accurate idea than any pen-picture can possibly do.

This method of diagnosis is as yet in its infancy, and the extent of its applicability cannot be surmised; but we may safely expect that it will furnish the cue so still greater achievements in the diagnosis of throat and lung affections especially. The additional development of this arrangement, so as to attach to it a sensitive paper on which to imprint a permanent photograph of the flame picture, would add immeasurably to its general utility, and there cannot be a doubt but that ingenuity will accomplish this improvement.

BRITISH VACCINATION ACT.

We have been favoured by Sir Sidney Waterlow, M.P., for Maidstone, with a copy of the amended Vaccination Act, 34th and 35th Victoria of the Imperial Parliament, many of the provisions of which, would form the basis for an amended Act in the Dominion of Cansda. It must long have been patent to every member of our profession that the existing Act is inoperative and almost useless, and with the large representation of medical men in the House, we have a right to expect that from some of them, a Bill on this subject should be introduced at the next session. The division of every Township into school sections will greatly facilitate enquiries into the number of unvaccinated, if proper medical officers are appointed for that purpose. The supply of lymph should, as in England, be under the supervision of a Government Board, so as to insure immunity from impurities. It is a matter for wonder, that in the present day, when so much more attention is paid to the prevention of disease than formerly, that vaccination should be so much neglected, more particularly in this Dominion, drawing annually from all parts of Europe, a large amount of poor settlers, exposed in the transit to the chances of infection. Although vaccination is sometimes powerless to protect us from variola, it always diminishes the gravity of the malady. This property which Jenner and his first followers did not even suspect, is thoroughly proved by the various facts which have been accumulated. In one of the most terrible epidemics of variola that has taken place in Europe since the discovery of vaccination—that of Marseilles in 1828, more than ten thousand persons were attacked; of these, two thousand only, had been vaccinated, and of that number, only forty-five died; whereas, one thousand five hundred of the eight thousand who had not been vaccinated, were carried off by the pesti-

lence. (See M. Serres report Academy of Sciences.) Vaccine matter evidently loses part of its efficacy in passing from arm to arm, it is therefore desirable to renew it as often as possible. Comparatively recent discoveries have proved that we can renew it at will by vaccinating heifers, the lymph thus obtained being more powerful, and less open to objection than from the long transmitted Jennerian virus.

The propriety of re-vaccination is now fully established. In Germany the various governments have paid great attention to the subject, owing the circumstances of epidemics of variola having manifested themselves with a severity to which we had become quite unaccustomed since the introduction of vaccination. Re-vaccination has been consequently resorted to on an extended scale, having the effect of arresting the epidemics. Thus in Wurtemberg, forty-two thousand persons who had been re-vaccinated, only presented eight cases of varioloid; whereas, one-third of the cases of variola have occurred in persons vaccinated only in infancy. It is principally between the ages of fourteen and thirty-five that vaccinated persons are most liable to be attacked by variola. When there is an epidemic, the danger commences earlier, and children of nine or ten years of age may be seized. Prudence, therefore, requires that under ordinary circumstances, re-vaccination should be performed at the age of fourteen or fifteen, and even earlier, if within the radius of an epidemic.

PHOSPHO-NUTRITINE AND MILK OF MAGNESIA.—Anong the many additions that have recently been made to the list of new remedies, there are few that merit more fully the approbation of the profession than that of *Phospho-Nutritine*, a new and important preparation of the Soluble Wheat Phosphates, and the Milk of Magnesia.

The importance of the first named will readily be noted by the following extracts from well known authorities.

Of the *Soluble Wheat Phosphates* Prof. Grace Calvert says: "The phosphates contained in wheat are soluble; they are not combined with organic matter, but are in a free condition; further, the greatest part are those of potash and magnesia."

Prop. J. V. Liebig remarks: "The significance of the nutritive salts of our food (that is, the phosphates) is sufficiently well known to our physiologist; it is known that, without their co-operation, the other constituents of our food are incapable of affording nourishment." As a remedial agent, the Phospho-Nutritine will be found to differ from ordinary medicines called or containing phosphates, inasmuch as these are mainly phosphates of lime and soda—the least of importance in supplying the daily waste of our organs—while in this solution, the phosphates of Potash and Magnesia greatly predominate, and the superiority which this difference gives, must be apparent to any intelligent mind and instantly recognized by the Faculty.

Of the *Milk of Magnesia* Prof. Gisborne says: "It has a smooth and milk-like taste, is the best of all antacids, and whether used for children or adults, physicians will find that this hydrate possesses all the medicinal properties of magnesia in a much higher degree than the calcined and carbonated preparations of that important alkali.

Physicians wishing to try either of these remedies, may obtain a supply from Devins & Bolton, Montreal.

NOVEL EXPERIMENT.—Dr. Fuller, of Montreal, has conceived the novel idea of trephining out portions of the skull of an idiotic child of two years old, to allow the expansion of the brain, and thereby afford the faculties an opportunity of developing, which had not been previously the case. Since the operation there has been a marked improvement in the mental condition; and a paralysis of the arm, with general coldness of extremities has been quite remedied. The faculties of intelligence have brightened up considerably; and, encouraged thereby, it is Dr. Fuller's intention to take out another piece of skull, and note the result.

NEW INSTRUMENT.—We were lately shown a very ingenious combination of Sim's and Nott's Speculum, manufactured by Mr. Gross, of Montreal, which is admirably adapted to the necessities of operators. Every hospital, at least, should be possessed of one, as it will be found exceedingly convenient in the operation for vaginal fistula. Mr. Gross has very much enlarged his works of late, affording him increased facilities for meeting the ever increasing demand for surgical instruments and appliances.

FŒTICIDE.—In his address before the Canada Medical Association, Dr. Hingston, in alluding to the crime of fœticide, made the following remarks:—"Who amongst us has not been appealed to by married women in fashionable society to thwart the designs of Providence in their regard; and who amongst us does not know the earnestness of that appeal, where delicate health, narrow means, the claims of society, the displeasure of a husband, are urged most tearfully in support of an undesired maternity by those whom we would be disposed to befriend? What young man amongst us who has not been obliged to reject a proffered bribe where his impecuniosity seemed to give hope to the would-be fœticide? What practitioner, who has not found his advice "not to kill" spurned by one who looked to him for help in ridding her of the fruit she was bearing? Some years ago he was present at an interesting meeting of physicians at Malone, N. Y., and the aged president dwelt, among other things, on this topic. He told us of a married lady, one of his best patients, who wished to be relieved, at an early period of gestation, of the legitimate fruit she was bearing. He expostulated, coaxed, and at length, threatened. She left his office, indignant at his want of complacence, and although he had attended her and her family for years previously, she never afterward went near him. But to continue his own story: 'I had my own satisfaction, for of a fine afternoon, a young lady of eighteen summers, full of life, and health, and beauty, might be seen passing my window, little dreaming how much she was indebted to the humble old man in his office near by for the continuance of the life she now so much enjoyed.'"

SUBSTITUTE FOR CHLOROFORM.—Dr. Richardson read a paper at the British Association on the uses of various ethers and alcohols in medicine and surgery. He finds that it is becoming possible to predict the action of new compounds with great exactness, from their chemical composition, and also, by modifying composition, to remove sources of inconvenience or of danger. By this line of work, he hopes to arrive ultimately at an agent that will supersede chloroform and its analogues, and that will suspend sensation without danger to life. In this direction he mentions "triethylic ether," a new anæsthetic substance, from which excellent results may be expected.

AMBULANCES IN CONNECTION WITH HOSPITALS.—Some years ago the Board of Commissioners of Charities and Correction for New York, established a reception hospital in the City Hall Park, known as the Park Hospital, where urgent cases of disease or accident could be received and attended to until they could be removed up town to the Bellevue Hospital. In connection with this temporary hospital, a conveyance or ambulance for carrying the sick was employed; this was the commencement of the ambulance system in New York. Bellevue Hospital has now six ambulances ready to start at a moment's notice to any part of the city, and is also connected by wires with all the police and fire-alarm stations in the city. The New York hospital has two very handsome ambulances in connection with that Institution, and lately the Roosevelt has also provided itself with an ambulance. A surgeon is sent out from the hospital with each ambulance to look after the patient and perform any duty that may be necessary. The new ambulance of the New York hospital cost $800; those of the Bellevue, $600 each, and the one recently purchased for the Roosevelt, cost only $350, and is quite equal to any of the others.

BICARBONATE OF SODA IN BURNS.—Dr. Waters, of Salem, states that bicarbonate of soda, or any other alkali, in neutral form, will afford instantaneous relief from pain in the severest burns or scalds, and will cure such injuries in a few hours. At a late meeting of the Massachusetts Dental Society, he performed the following experiment. Dipping a sponge into boiling water, the Doctor squeezed it over his right wrist, producing a severe scald around his arm two inches in width. Bicarbonate of soda was at once dusted over the surface, a wet cloth applied, and the pain, the experimenter stated, was almost instantly relieved. Although the wound was of a nature to be open and painful for a considerable time, on the day following the single application of the soda, the less injured portion was practically healed, only a slight discoloration of the flesh being perceptible.

LONDON HOSPITAL MEDICAL COLLEGE.—A most successful "conversazione" was held at the opening of the winter session of the London Hospital Medical College, Eng. It was largely attended. A number of Canadian students are now attending this school.

ADVERTISING OPERATIONS.—We are constantly receiving notices clipped from newspapers in different parts of the country, containing accounts of operations performed by medical men. We do not suppose that any of these gentlemen are guilty of describing their own operations; yet we are at a loss to know how it is that many surgeons, both in cities and in the country, who stand deservedly high, in public and professional estimation, are never noticed by the members of the fourth estate, although they sometimes perform dozens of operations in the course of a twelvemonth? The code of medical ethics by which the regular profession is governed in this country, and also in the United States, is very explicit on this point. The clause referring to this matter, we quote as follows:—

"It is derogatory to the dignity of the profession to resort to public advertisements, or private cards, or handbills inviting the attention of individuals affected with particular diseases, publicly offering advice and medicine to the poor gratis, or promising radical cures; or to publish cases and operations in the daily prints, *or suffer such publications to be made;* to invite laymen to be present at operations, to boast of cures and remedies, to adduce certificates of skill and success, or to perform any similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician."

ACTION OF SUNLIGHT ON VIRUS.—We have somewhere seen a statement crediting a distinguished English physician with having made some interesting experiments on the power of sunshine to destroy poison. Having obtained some poison from the *Cobra* on ivory points, from London, he exposed them in a glass bottle to the sunlight; some of the points were protected by a paper wrapping, while a number were fully exposed. On the latter, or those having the benefit of the full sunlight this most deadly poison is said to have soon become harmless, while those protected by the wrapping retained their poison in all its fatal activity. This result agrees with the general experience and observation of those making use of vaccine virus on ivory points to any great extent, a very short exposure to the sunlight being sufficient to destroy their efficacy by neutralizing the vaccine.

SENSIBLE REMARKS.—An eminent physician at Dartmouth College, addressing the graduating Medical Class, on one occasion, began by remarking that "the science of medicine has been and is now a growth, and consequently has not yet reached perfection." The main trouble with medicine is that man was born to die, not merely of old age, but of various diseases, at various stages of life. Recovery from an illness depends upon several conditions, with some of which the medical man who is called in, has nothing to do. He may be sent for too tardily. His advice may not be followed, and his prescriptions may be negligently dispensed, or altogether dispensed with. He cannot keep watch and ward by every bedside, to prevent nurses from dosing their victims into the grave. And, more than all, however much he may know of theory and practice, there will remain a great many things of which he is ignorant, and which can only be learned by life-long observation and experience, and which may be termed the unwritten language of medicine. His anxieties will necessarily at times be great.

THEORY OF CONTAGION.—If contagion consists, as claimed by Tyndall, of definite particles, sometimes floating in gas, or in the air, or in the liquids we drink; and that like organic seeds in the soil, the particles multiply themselves indefinitely in suitable media, the great probability being that their disease-producing facilities are living things—not gaseous or liquid,—but solid, the treatment of disease will resolve itself sooner or later into a kind of *germicide* within and without the body—within, in the fluids and secretions of the body—without, in the noxious elements that surround it.—*President's Address, Can. Med. Ass'n.*

APPOINTMENTS.—Dr. Burland has been appointed House Surgeon to the Montreal General Hospital, and Dr. Bell assistant Surgeon. Dr. Matthews Duncan, of Edinburgh, has received an appointment at St. Bartholomew's Hospital, London—the post vacated by Dr. Greenhalgh. Dr. McLeod, of Glasgow, has been appointed Surgeon to the Queen in Scotland, in place of Mr. Lister. H. P. Yeomaus, M.D., of Mount Forrest, to be an Associate Coroner for the County of Wellington. T. S. Walton, M.D., of Parry Sound, to be an Associate Coroner for the District of Parry sound.

THE BOGUS DIPLOMA BUSINESS.—The manufacture and sale of bogus diplomas, of the American University of Philadelphia, is still being attempted, notwithstanding the fact that the Legislature of Pennsylvania has annulled the charter of that Institution. A short time ago 500 engrossed diplomas in blank, addressed to Dr. Buchanan, were seized by the Customs authorities in Philadelphia. They had been shipped to Liverpool, but something having interfered with preconcerted plans, they were returned to the consignor.

PERSONAL.—Dr. Eccles, of Arkona, has been on an extended tour through Great Britain during the past year. He remained some time in London, and successfully passed the examination for the M.R. C.S., and was admitted a member of the College. A letter written by him (Sept. 19th), descriptive of Edinburgh and its surroundings, appeared in the *Lambton Advocate* of the 19th ult.

ABORTIVE TREATMENT OF BUBOES.—Buboes may be prevented from suppurating and entirely removed, by promoting absorption through the aid of gentle pressure. This may be done by using an ordinary truss, and bathing frequently with Goulard's extract.

Toronto Hospital Reports.

TYPHOID FEVER—PERFORATION OF THE BOWEL.

S. N. æt. 28 years, was admitted into the hospital on the 4th of October, '77. Family history good. He had typhoid symptoms, and had been suffering from diarrhœa for about three weeks prior to his admission. There was tenderness in both iliac regions; anxious and pinched expression of countenance; pulse about 120; skin hot and dry. The fever seemed to be very mild, and the temperature was not taken; tongue coated but not dry. He was put upon quinine and nitro-muriatic acid, with astringents to restrain the diarrhœa. The diet consisted chiefly of eggs and milk. Stimulants were not used. On the 7th he complained of great pain in the abdomen, increased on the slightest pressure, and passed some blood by the bowels. Anodynes were administered; but he rapidly sank into a state of collapse, and died on the morning of the 8th.

Post mortem 8 hours after death. On opening the chest, the heart appeared somewhat flabby, and was filled with dark fluid blood. There were old adhesions between the lungs and pleura costalis, especially on the left side. On opening the abdomen, it was found to contain a considerable quantity of grumous-looking serum, flakes of lymph, and some pus. The intestines and greater omentum were very much congested and softened, and upon a more careful examination, an opening was found in the ileum near its junction with the cæcum. Upon slitting open the intestines and examining the perforation, it was found to be surrounded by an ulcer an inch and a half in diameter, which was thickened at the margins and thinner towards the centre. Other portions, both above and below, were the seat of ulceration; but none were so thin as the former. The above case was interesting as showing that danger and sudden death may arise in cases in which the fever is very mild, and where disastrous results are entirely unlooked for.

INGUINAL HERNIA IN A FEMALE.

Mrs. E., æt. 55, native of England, of healthy parents, was admitted into the Hospital on the 9th Sept. She complained of a rupture "in her side," as she called it, and said that it came down and became large and painful at times, and that she was unable to put it back. The hernia was replaced by the assistant house-surgeon, and the patient was ordered to keep her bed until a truss could be obtained. A day or two elapsed during which time the bowels came down repeatedly after attacks of coughing. On examination the hernia was discovered to be right inguinal direct—a form very uncommon in women. She states that the rupture took place after a severe fit of vomiting, when she was pregnant with her second child. It was treated at the time by some sort of support and after her confinement it was better, but it troubled her more or less during gestation ever after, and within the last four years it has become very troublesome. A well fitting ordinary truss has been applied such as is worn by males for inguinal hernia, and she is now able to go about without any inconvenience.

VESICAL CALCULUS.—LITHOTRITY.

Mr. McN., æt. 70, native of Ireland, was admitted into the Hospital on the 20th of August suffering from stricture of the urethra. Upon a

careful examination of the symptoms, the presence of stone was also suspected, and a very small sound (the largest that could be introduced owing to the stricture) was passed with difficulty. The suspicion was confirmed; a small stone was found to be present. The patient was at once put under preparatory treatment. The urethra was gradually dilated until a No. 14 catheter could be readily introduced. This required a good deal of time and patience, besides the splitting of one of the strictures near the anterior part of the urethra. As soon as the lithotrite could be introduced, the operation was performed. The calculus was found to be about 1¼ inches in diameter, very soft and friable, and readily gave way. The bladder was subsequenty well washed out, and the case is progressing favourably.

Books and Pamphlets.

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE, Vol. XVI., on Diseases of the Locomotive Apparatus and General Anomalies of Nutrition; by Prof. Von Ziemssen. New York: Wm. Wood & Co.

We are in receipt of another volume of this excellent work, which should grace the shelves of every practitioner anxious to keep pace with the advanced medical literature of the age. This volume like some that have preceded it, has been written by several authors: Prof. H. Senator, of Berlin, discusses "Rheumatic effusions of the joints and muscles;" Prof. E. Seitz, of Geissen, "Disorders caused by catching cold;" Prof. Immermann, of Basil, "General disorders of nutrition;" and Prof. Birch Hirschfield, of Dresden, "Scrofulosis and affections of the lymphatic glands." Each writer exhausts every minutiæ of his subject, and presents the reader, in addition to a judicious compilation, a valuable record of his own experience. If we selected portions of these various theses, we should be doing injustice to the work as a whole, by unravelling the thread by which the compiled materials are held together. We cannot do better therefore, than strongly recommend the work as the most exhaustive translation into the English language on the various subjects on which it treats. The work will be extended to two volumes more than was at first contemplated, making in all seventeen. The following five volumes are yet to appear, Vol. XIV., on "Neurosis," in Dec. '77. Vol. XIII., on "Diseases of the spinal cord," in March, '78. Vol. XVII., on "Blood diseases," in June, '78 Vol. VIII., on "Diseases of the abdominal viscera," in Sept. '78, and Vol. IX., on "Skin diseases," in Dec. '78.

PHYSICIAN'S VISITING LIST, by H. C. Wood, M.D. Philadelphia: J. A. Lippincott & Co.

This List presents many features which are peculiar to itself, and which will be found very convenient. In addition to the ordinary space for the name, there is also one for the address of the patient. It contains an erasable tablet, list of medicines and doses, diagrams of motor points of muscles for applying electricity, blanks for "accounts rendered," nurses' addresses, obstetric, engagements, &c., &c.

THE PHYSICIAN'S VISITING LIST FOR 1878. Philadelphia: Lindsay & Blakiston.

The above mentioned Visiting List has been published regularly for the last twenty-seven years. It is now offered to the profession in a most perfect form, such slight improvements having been made every year as experience seemed to suggest. We give the work our warmest commendation.

AMYL-NITRITE IN WHOOPING COUGH.—1 to 3 minims repeated every 2, 3, or 4 hours, according to the age of the child and the urgency of the symptoms. No antagonism exists between this remedy and quinine.

The annual death-rate of Edinburgh is about 15 per thousand.

Births, Marriages and Deaths.

On the 25th September, in Toronto, Mrs. Dr. McCollum, of a son.

On the 16th ult., the wife of Dr. Temple, Toronto, of a daughter.

At Stratford, on the 10th ult., J. R. Hamilton, Esq., M.D., to Sarah Leonora, eldest daughter of Mr. A. B. Orr.

THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

VOL. X. TORONTO, DEC. 1ST, 1877. No. 4.

Original Communications.

INTUSSUSCEPTION OF THE ILEUM.

BY W. A. WILLOUGHBY, M.D., COLBORNE, ONT.

I was called on Wednesday, Oct. 31st, at 11 a.m., to see Mr. S., aged 63, who had been seized suddenly with pain an hour before while in the field assisting his men in digging a ditch. He had been engaged in the same work for some days previously without suffering any inconvenience—and none was felt up to 10 a.m. the time of the attack. He was as well as usual in the morning; eating his breakfast heartily and having had a free evacuation from his bowels. I found him in extreme torture, complaining of constant and continuous pain in the lower part of the abdomen. localized if at any spot in particular, a little to the right of the median line, about half way between the umbilicus and the pubes, not enough to the right side, however, to make one suspect trouble at the ileo-cæcal orifice—though when asked to point out the seat of pain he would pass his hand over the whole pubic region. Accompanying the pain were violent attacks of vomiting occurring every few minutes, the ejected matter being mucus and bile. Superficial examination of the abdomen, the walls of which were quite lax, revealed nothing suggestive, and nothing was discovered by digital examination per anum. The urine was voided freely. There was no hernia. The heart's action was somewhat hurried, the pulse being 80, and intermittent, dropping a beat in every 8 or 10.

I put the patient on Hoffman's anodyne in drachm doses, 10 minims of chloroform being added to each dose. This quantity was repeated every fifteen minutes for the first hour. I also gave him an injection of warm water, to which was added soft soap and castor oil. This emptied the lower bowels thoroughly. The patient was growing worse, pain becoming more severe, notwithstanding, I had used hypodermically ¼ grain of morphine. He lay on his back keeping his body perfectly motionless, and his suffering was very acute. As I feared the case would prove to be one of invaginated bowel, I gave a copious injection of warm water (3 quarts), in which was dissolved 25 grs. of extract of belladonna. I passed this up slowly and had it retained for fifteen minutes, when I allowed it to come away, which it did without carrying any fæcal matter with it. I gave by the mouth, 15 grs. of calomel and ½ grain of morphine, believing it would have the best chance of remaining on the stomach. I left a similar powder, to which was added 5 grs. of jalapine, to be given in two hours after previous one, and directed that he should have free injections of warm water every two hours. I left at one o'clock and did not see him again until seven, when I found that the instructions had been followed with out any benefit as far as the bowels were concerned—though the pain was lulled somewhat. I remained five hours with him—at times patiently kneading the bowels, again giving injections, to some of which I added extract of belladonna, placing him on his right side with his shoulders low down and his hips elevated as much as possible,—without any change in his condition. I left him at midnight with orders that nothing was to be given till six in the morning when I saw him. He had used the bed-pan twice without having anything pass his bowels, though the urine had passed freely.

Upon manipulation of the abdomen now, a distinct enlargement could be felt in the right inguinal region, apparently about the ileo-cæcal orifice, a couple of inches from this, and directly to the left or it, another enlargement could, with difficulty, be made out. This last was very painful—the former not at all painful on pressure. I gave an injection every two hours—the bowels to be rubbed gently with the hand at intervals during the day.

The pulse was now about 100. The vomiting was persistent, but not stercoraceous; no fæcal odor from the breath. I saw him in the evening, when I had the pleasure of meeting Dr. McDonald, of Brighton, and Dr. Gould, of Colborne. The enlargement first mentioned, in the inguinal region had entirely disappeared, but his condition had grown rapidly worse. His pulse was almost im-

perceptible at the wrist. The extremities were cold in spite of every applied means to restore warmth. We considered his case hopeless—in fact he was in a state of collapse at the time—and nothing to what had been resorted to in the case could be added. There was a fæcal odor from the last ejecta from the stomach. We gave him half a grain of morphine and ordered brandy every half hour, which he could not keep down, as I learned in the morning. From his condition at this time, we did not think it possible for him to last another twelve hours.

I saw him in the morning, Friday, Drs. Thorburn, Powers, and Gould, seeing him with me during the day. His condition was very much changed since last night. He was now perfectly easy, not having any pain even on manipulation. Extremities warm; stomach quiet; heart's action easy and natural; pulse 90 and perfectly regular, its intermittency having ceased with the cessation of pain. As he was in such a comfortable condition, we decided to let him alone for the day, which we did, and see him next morning (Saturday).

This morning, as the bowels were much distended and tympanitic, we decided to give him a much larger injection than he had as yet. Two gallons were slowly passed up, the anus being aided in retaining it by a napkin firmly pressed against it. With this quantity of fluid in the bowel, we raised him into a perpendicular position, heels up. While gently rubbing the bowels before letting off the injection, we had the satisfaction of seeing him make a start as if something had given way. Pressure being removed from the anus the fluid came away as if driven by a force pump. With the last of it there were a couple of fæcal casts and a quantity of dark grumous matter. There was a distinctly gangrenous odor from the expelled contents. We repeated the injection in two hours. This likewise carried away a quantity of the same well pronounced gangrenous matter. We left him and returned at night to find him sinking. He had had a couple of motions, principally grumous matter and blood since morning. He passed a quiet night and lived till two o'clock on Sunday afternoon. He is the fourth of the same family that has fallen a prey to this intractable affection. Two sisters and two brothers (and also a son of one of the sisters), died from intussusception.

Autopsy, 42 hours after death. Abdomen very much distended, upon making usual incisions found tissues perfectly healthy. Upon raising ileum found indications of disease about 12 inches from the ileo-cæcal orifice. This part of the small intestine was empty, as also the large intestine; above the diseased portion the small bowel was filled with fluid fæces. Removed the implicated portion, which we afterward found to be by measurement 18 inches. On the outside of the incarcerated part and for some four inches above and two below, the whole surface was intensely engorged with blood. The sheath over the invaginated part was just five inches long; on the cæcal side of injury there was a ruptured band of about one-half inch in width. This was evidently what had given way during the injection; on the upper side there was a firm band one inch in width. This band was very firm and directly above the commencement of the sheath.

Slitting the bowel up from the lower extremity to the upper limit of the sheath we found a loop of bowel completely encased. This loop of intestine measured nine inches. The mucous coat of the bowel was engorged till it seemed a mass of blood. There were a number of gangrenous patches, one of which was much more advanced than the others.

The patient just lived 100 hours from the commencement of the attack; mind perfectly clear to the last.

REMARKS.—The only benefit that treatment had given in this case, which the autopsy revealed, was the rupture of the lower encircling lymph band. The quantity of water (two gallons) passed up at one time, in order to accomplish this, may give a proximate idea of the quantity required to be of any use in similar cases. It will be observed that with this quantity the ileo-cæcal valve was passed by a sufficient quantity to distend the ileum between this valve and the obstruction.

Attentive consideration of this case prior to and after death has satisfied me that we have nothing successful to hope for, from any treatment short of operation, and if a second one of this peculiar nature should come under my care I shall promptly cut down at the earliest possible moment, after which I am satisfied of the nature of the trouble. An operation to be of any use must be resorted, too, before the lymph bands have become organized.

What peculiar constitutional disposition can there

be in this family that so many should fall a prey to incarceration of the bowel? The only thing particularly observable in this individual case was the great quantity of tissue in the longitudinal muscular coat of the intestine.

GENITAL IRRITATION AS A CAUSE OF NERVOUS DISEASE.

BY GEO. M. AYLESWORTH, M.D., COLLINGWOOD, ONT.

My attention was called to this matter by an article in the *American Journal of Medical Sciences* for October, 1876, written by A. McLane Hamilton, M.D. I must refer those interested to Dr. Hamilton's article for an exposition of the physiological principles that underlie the train of symptoms noted. He mentions Dr. Jacobi and Dr. Sayre as almost the only observers who have directed attention to the subject, and states that the latter gentleman has reported ten cases in which the condition was recognized. To these, Dr. Hamilton adds four more reported in the article above mentioned, and he divides the neuric symptoms arising from this condition as follows:

First, those expressed by want of muscular power, —Paresis, including paraplegia and partial paresis of isolated groups of muscles; paresis of the muscular fibres of the bladder.

Second, Sensory—Hyperæsthesia, anæsthesia, dysæsthesia.

Third, Vaso-motor—Priapism, local hyperæmia.

Fourth, Hyperkinesis—Choreic movements, transitory contractions.

Fifth, Physical disturbances—Loss of consciousness, impairment of memory, irritability of temper, melancholia, dementia.

The patient may present many of these symptoms at the same time. C. S., a boy about five years of age, a case under my observation, the symptoms when first seen were,

First, those expressed by want of muscular power, —Partial hemiplegia. The paralysis being complete in the left side of the face and in the extensor muscles of the left fore-arm; partial in the tongue and the extensor muscles of the left leg. The flexors were not affected; there was atrophy of the affected muscles which was nothing like so great in the opposing groups, although existing to some extent.

Second, Sensory—Hyperæsthesia.

Third, Vaso-motor—Priapism, almost constant.

Fourth, Hyperkinesis—Transitory contractions, occurring when he lost consciousness.

Fifth, Physical disturbances—Loss of consciousness, occurring as often as every five minutes for several hours at a time. It was only momentary, but *complete*. These attacks were epileptoid in character, and his parents had come to denominate them as *spells*. Irritability of temper.

There was also adduction of the left leg and contraction of the sural muscles, drawing up the heel of the left foot. The eyes were constantly twitching, and during the *spells* were drawn violently to the left.

When the child was about two years of age, and residing in the Western States, the parents had first noticed these attacks, and they *constantly* increased in number and severity, notwithstanding he had taken a great many courses of medicine for nervous disease under the direction of a number of medical men, both in the United States and Canada, the genital organs having been entirely overlooked. Upon examination marked phymosis with a prepuce in a high state of irritation was noted. I performed circumcision; the wound did not heal satisfactorily, and it was several weeks before it was entirely closed. It was several weeks after this event before the epileptoid attacks ceased entirely; although slight, the changes in his condition were sufficient previous to this to encourage me to hope for ultimate success. Having once ceased, they have not returned except for a short time while the patient was suffering from derangement of the stomach and urinary organs, which yielded rapidly to treatment.

The present state of the patient one year after operation:—

First, those symptoms expressed by want of muscular power—Paralysis of face and tongue absent, not quite so marked in arm and leg. Patient frequently in walking, places left foot squarely on the floor.

Second, Sensory—Absent.

Third, Vaso-motor—Absent.

Fourth, Hyperkinesis—Absent.

Fifth, Psychical disturbances—Absent. Eyes normal.

The patient has grown very rapidly, and is very hearty looking. The affected side has kept pace

with the general growth. The atrophied groups of muscles are improving, but the disproportion is still very marked. By comparing the state of the patient now and at the date of the operation, it will easily be seen that the change is complete, except in those parts where organic change had taken place (the atrophied muscles) before the application of the remedy. And the changes here in so short a time have been so great, that they give us reason to hope for a complete recovery in the end.

As there was no medical treatment except such as was required to keep the system in its ordinary health, the change in the patient's condition can only be ascribed to the operation relieving genital irritation, or a remarkable coincidence.

A NEW METHOD OF TREATING FRACTURE OF THE CLAVICLE.

BY HENRY VANBUREN, M.D., CHICAGO.

(*Also published in Chicago Medical Journal.*)

While one of the visiting physicians of the Central Free Dispensary about three years ago, I treated a patient for fracture of the clavicle, adopting the plan of my friend Dr. Lewis A. Sayre, of New York, using two strips of adhesive plaster without any axillary pad. I became convinced at once, that the principle advocated by Prof. Sayre, was undoubtedly the correct one; but before I had gone very far in the use of the adhesive strips, I found that my patient, a young native of Ireland, began tearing them off. The weather was warm, and, to use the language of the lad, they "itched him." Finding this difficulty in holding the arm and shoulder back by a hitch around the body with adhesive plaster, the thought struck me, that I would make a hitching post of the sound shoulder instead; not as in the old plan of a figure of eight around both shoulders, but upon that which I will now lay before my brethren in the profession.

To make known my plan in a sentence—I make attachment to the middle of the arm on the fractured side; draw the arm backward until the clavicular portion of the pectoralis major muscle is put sufficiently on the stretch to overcome the sterno-cleido-mastoid, and then make a hitching post of the sound shoulder to hold these muscles in extension, and by this extension with the sling, which will be hereafter described, the ends of the fractured clavicle are held in apposition. I make the first bandage three or four inches wide out of unbleached cotton, of double thickness and sufficient length. On one end of this bandage a loop is made, by returning the bandage on itself, and fastening the end with a few stitches The hand on the injured side is then passed through this loop, and the loop carried up to a point just below the axillary margin. This bandage is then passed directly across the back, and under the sound arm and over the sound shoulder, and returned obliquely across the back, and pinned or stitched to itself at the point where the loop is formed. See figure 1.

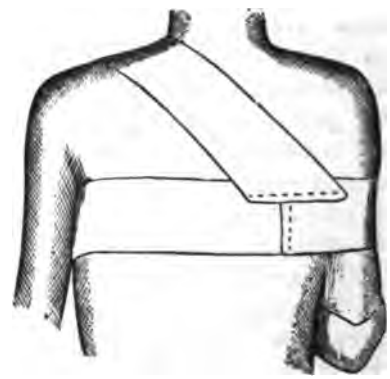


Figure 1. VanBuren's first Bandage for Fractured Clavicle. Back view.

The second bandage is then made and applied as follows: Flex the arm of the injured side, and place the hand on the chest, pointing in the direction of the sound shoulder; then take a piece of the same material as used in the first instance, and make a bandage four inches wide, of double thickness and sufficient length, and pin or stitch one end of this bandage to the lower margin of the first bandage, in front of the sound shoulder. It is then passed diagonally downward, and across the chest under the hand and forearm which has been flexed upon the chest, and carried around the arm at the elbow, and back on the dorsal surface of the forearm and hand to the point from which it started, and this end also pinned to the first bandage. The lower margins of this bandage are then stitched together for a distance of about three inches at the elbow, thus forming a trough for the elbow to

rest in. The same is also done at the upper end of this bandage, which forms another short trough for the hand to rest in. See figure 2.

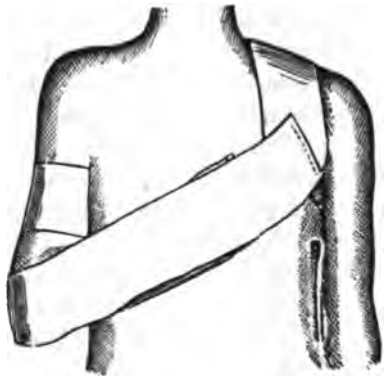


Figure 2. VanBuren's second Bandage for Fractured Clavicle. Front view.

This bandage or sling may be made as described above, before it is applied, and the elbow placed in the lower trough and the hand in the upper one; and the upper ends of the bandage pinned to the lower margin of the first bandage, at a point opposite the sound shoulder, as above indicated; indeed I prefer this plan because more convenient. This sling serves the triple purpose of drawing the lower end of the arm forward and upward, and thus throwing the injured shoulder backward. It supports the forearm and hand in a comfortable and quiet position, and last, it prevents the first bandage from cording under the sound arm by its attachment to its lower margin. To prevent the bandage from producing excoriation in the axilla of the sound side, I usually cushion the bandage at this point by stitching on two or three extra thicknesses of the cotton cloth. The same may be done at the loop,—around the arm of the injured side, if necessary. What is presented, then, for the consideration of the profession in this method is—

1st. The great simplicity of the appliance.

2nd. The complete retention of the fragments in apposition.

3rd. The comparative ease with which the bandage is worn.

The deformity which takes place in fracture of the clavicle is too well known to require any description, viz.: that the shoulder falls downward, forward and inward, and that the outer end of the sternal fragment overlaps the inner end of the acromial portions of the clavicle. The indications to be fulfilled in the treatment are also well known, viz: to draw the shoulder upward, outward and backward, and retain it there, and thus by virtue of this position, hold the fractured ends in apposition. It will be observed that the first bandage, as presented in Fig. 1, not only draws the shoulder backward, but has a lifting tendency, the bandage being at a higher point, where it passes over the sound shoulder than where attached to the arm on the injured side, hence the shoulder is drawn upward; also that the deltoid and biceps muscles are quieted by the loop around the arm. Let the surgeon himself stand erect and thrust backward and upward his own shoulder, the one supposed to be the injured one, and flex the fore-arm upon the chest, with the hand pointing in the direction of the sound shoulder, and he has at once secured the position and fulfilled all the indications desired in fracture of the clavicle; and the bandages presented in this paper retain this position in a very simple and practical manner.

A patient of mine under treatment for this injury, was brought before the Chicago Medical Society, at one of its regular meetings in May last, after union had taken place; and I think the gentlemen who were present can say that there was little or no deformity in the case before them. I also had the privilege of doing what was so much desired before submitting this paper for publication, that of bringing this method before a number of surgeons of high standing in the profession, at the late meeting of the American Medical Association, among whom were Dr. Lewis A. Sayre, of New York; Drs. Gunn and Powell, of Chicago; and Drs. Bridge and Hyde, associate editors of the *Chicago Medical Journal*, who approved of the plan laid before them. I was eager for the opinion of Prof. Sayre, who was the first to put into practice the principle laid down in this method, and the plan received his hearty approval. I have treated every case of fractured clavicle upon this plan, which I have been called upon to attend for the past two years, modifying the appliance from time to time, until the indications sought after were more perfectly acquired. At the beginning of the third week, or earlier, the bandages should be removed occasionally, and passive motion of the elbow and shoulder made. I am of the opinion that judicious movement of all fixed joints is

too long delayed by most surgeons in cases of fracture. In the fracture presented in this paper, with the bandages used, early movement is indispensable, inasmuch as the parts are held so completely at rest.

And now, if any apology is needed for trying to present a new way of treating this fracture, it must be found in the fact, that we think the old plans were failures, notwithstanding the many and complicated means devised to secure retention. Dr. Sayre has quoted, in his pamphlet on this fracture, from a dozen authors, running back to the days of Hippocrates, showing that this injury has always been attended with deformity. In Prof. Hamilton's work on "Fractures and Dislocations," the auther quotes from fifty-seven different authors, to sustain his own observations, that this fracture is nearly always followed by deformity. Miller, Ferguson, Simpson, Hancock, South, and many others of England, and a grand array in other countries, have all had their wedge-shaped pads, and never-ending turns of the bandage around the body, but I cannot see that they accomplished more than to keep the fracture quiet, and thus facilitate a kind of union with, as they all acknowledge, more or less deformity.

South says that he does not like any apparatus which draws the shoulder backwards. If the author means both shoulders, we are agreed; but I want one shoulder, and that the injured one, drawn backward, and well backward at that,—for herein we get extension and counter-extension too, if you please, the thing so essential in fractures of all long bones, and we cannot get this in any other way. The pad under the arm does not cause adequate extension, nor will it ever do so, no matter how large or in what manner placed. The figure of 8 bandage of modern use, is exceedingly objectionable, for one important reason, if for no other. If the fracture is in the middle third of the clavicle, or near the middle at all, the bandage presses down over the site of injury, and particularly over the inner end of the outer fragment, the very end already dragged down by the weight of the shoulder, and just here is one of the valuable points in what we have termed a new method. The injured shoulder is entirely free from any depressing or other bandage. I do not even allow the patient to wear a suspender over the injured shoulder.

The "postural position" might do quite well for an indolent man, but even then we might fail in getting union; again, this is an age of fresh air and hygiene, and every patient, as far as practicable, should have the advantages of out-door exercise. I am no stickler for any kind of apparatus in the treatment of fractures, any more than I would be for any particular medicine in disease. Whatever accomplishes the end in the most simple manner under existing circumstances, is generally, if not always, the best, and the plan for treating fractures of the clavicle, as presented in this paper, is in keeping with this doctrine, and is brought before the profession with confidence, and in the belief that a good result can be attained in the hands of any surgeon, if the method is faithfully and intelligently carried out.

TRANSLATIONS FROM FOREIGN JOURNALS.

BY ————————, M.D.

POISONING BY SALICYLATE OF SODA. — Dr. Peterson (*Deutsche Med. Wochenschrif*) mentions a case in which salicylate of soda was given by mistake to the extent of 26 grames (390 grs.) in 12 hours. The patient was a young girl about 15 years of age, who had been operated upon for resection of the ankle joint. Fourteen days after the operation, she was given the salicylate of soda as above stated, and very soon toxic symptoms manifested themselves, similar to those observed in experiments on animals. The brain symptoms were the most prominent and persistent. There was delirium, difficulty of hearing and ringing in the ears; she was perfectly rational at times, and then complained of severe headache; could not see distinctly at a distance. There was strabismus and extreme mydriasis. The delirium lasted 8 days and was of a melancholy nature. During this time she had no recollection of what transpired. The temperature was not affected. There was hoarseness for four or five days; the respiration increased to 40 per minute, and the skin was covered with a profuse perspiration. There was considerable disturbance of the vaso-motor system, and dilatation of the blood-vessels in different parts of the body was noticed.

EPILEPSY CAUSED BY A LARGE FIBROMA OF THE

LARYNX.—*Berliner Klinische Wochenschrift, No.* 39). The case of fibroma of the larynx is described and illustrated by Dr. J. Sommerbrodt. The patient was 54 years of age, and had been troubled with hoarseness since 1867. In 1874 he came under the notice ot the Dr. who examined the larynx with a laryngoscope, and he discovered a large polypoid growth which was attached to the left vocal cord, especially over its anterior part. It also grew half way over the rima glottidis; was red in color, firm, and attached by a broad base. The hoarseness increased until Feby., 1875, when epileptiform convulsions commenced to show them selves, especially at night. These gradually increased and finally there was slight paralysis of the left arm, leg, and face. The fits became more frequent as the tumor enlarged, and occurred during the day. The ordinary remedies had no effect in reducing their frequency. The Dr. tried to snare the tumor ineffectually for several days in succession. On the fifth day he succeeded in cutting away with a sickle-shaped knife having a probe point, a small piece, and the next day the whole tumor, which was caught and spat up almost immediately—except a small fragment in the anterior part of the larynx, which was subsequently removed with small forceps. Very little hemorrhage followed the operation. The tumor measured 1 inch in length, ¼ inch in width, and ⅓ inch in thickness. It was wedge shaped, and presented numerous small outgrowths or papillary eminence on its surface. The patient made a good recovery and was entirely relieved of his epilepsy. He has had no return of the disease since. The author calls it a case of sympathetic epilepsy.

REMOVAL OF THE UTERUS IN CASES OF CHRONIC INVERSION—IRREDUCIBLE.—(*Archives de Gynécologie*).—M. Donné in a communication to the Academy of Sciences, Paris, gives the following conclusions:

1. External hysterotomy is an extreme surgical resource, but precious for cases of irreducible inversion, which threaten immediately the life of the patient.

2. This operation does not furnish a greater mortality than that of the greater number of grave operations.

3. In the actual state of science, it ought to be made preferably by the ligature, bearing in mind the perfection attained by this method.

4. For the first months of an inversion—even the first year as far as possible, repeated tentative efforts at reduction, lactation which generally suppresses the hemorrhages, and all sorts of palliative methods, should be fairly tried.

The operation ought to be reserved for cases recognized as irreducible, and for the period remote from the commencement of the malady, when involution has completely tak en place, and the neighboring organs have undergone changes rendering the risk of peritonitis much less, this being very important.

JUNIPER LEAVES IN PRURITUS.—Prof. Boeck (*L'Union Medicale*), recommends juniper leaves for the itching which accompanies pruritus, urticaria, prurigo, eczema, and other cutaneous affections. The appliance for using them is similar to that of a vapor bath. The patient is shut in a box fitting closely around the neck, and under him is placed some red-hot charcoal, upon which are strewn some juniper leaves, fresh or moistened with water. He is exposed to the vapor so produced for 20 or 30 minutes and this should be repeated every second day. In some of the above mentioned diseases it succeeds admirably, in others especially in chronic cases, its efficacy is not so well established. This treatment, the writer says, has permanently cured some obstinate cases of pruritus and urticaria.

TREATMENT OF PLEURISY WITH EFFUSION.—Dr. Heitter (*Allg. Med. Cent. Zeitung*) writes an able article on the above interesting subject. The author states his opinion that we can not by medicinal agents, to any great extent, produce absorption of the exudation, and that therefore, after an expectant course of a few weeks, recourse should be had to thoracentesis. The instruments he uses are of the simplest kind, which he strongly recommends in all operative procedures. He uses only a trocar, bistoury, rubber tube, and syringe. He does not consider the aspirator at all necessary, and would use it in old persons where the elastic force of the chest is not sufficient to force the fluid out. In cases of pyæmia he opens the chest by an incision two and a half inches long at the lowest point, and subsequently washes out the cavity with carbolized water by means of an irrigator and a caoutchouc tube, which is pushed into the deepest point of the pleural cavity. He considers

that in pyæmia a free opening is preferable to all other methods.

In serous exudation he thinks thoracentesis is not required if the fluid extends no higher than the middle of the scapula but that that it will become absorbed without danger to the patient. If on the other hand one side of the chest is filled and there is pressure on neighboring organs, an immediate operation is called for. When the fluid accumulates slowly he would not consider it too long, to wait two or three weeks to see if absorption will not take place spontaneously. He considers it advisable to ascertain as soon as possible, however, whether the exudation is serum or pus. This may be done by means of a hypodermic syringe. If blood is found to exist it indicates an unfavourable case; the prognosis is bad. The author also alludes to the fact that thoracentesis for the most part not serious, is not entirely free from danger, especially in persons who are weakened by long continued disease.

HYPODERMIC INJECTION OF ERGOTIN IN HEMOPTYSIS.—Dr. Hirschfield (*Wiener Med. Presse*) after alluding to the use of cold in the form of ice, alum, acetate of lead, tannin, chloride of iron, &c., says the sovereign remedy for hemoptysis is the hypodermic use of ergotin, which acts as a vaso-constrictor. Drasche was the first to use ergotin in this way in 1871. It is rapid in its action, and easily introduced as compared with the inception of medicine by the stomach under such circumstances. It is administered in solution with glycerine 1 to 10. To prevent any irritation by reason of the puncture, and to allay irritabilily of the nervous system frequently present in hemorrhages, and procure rest, he precedes the injection by one of morphia, or adds morphia to the solution of ergotin.

Correspondence.

To the Editor of the CANADA LANCET.

SIR:—With reference to the note in your last issue from my esteemed friend Dr. Daniel Clark of the Toronto Lunatic Asylum, claiming priority in the operation of hysterotomy in Canada, I must cheerfully concede that claim, *quo ad* myself. Dr. Clark's operation preceded mine several years—the one performed by me being on the 28th September, 1871.

Your obed't servant,

WM. H. HINGSTON,

MONTREAL, Nov. 6th, 1877.

Selected Articles.

TUBERCULAR MENINGITIS.

This disease is usually spoken of as one chiefly confined to children, though most authors recognise it as occurring in adults, but as rare in them. The most recent text-book (Roberts) teaches students that though mostly seen in children between two and ten years of age, it may be met with from earliest infancy to old age. A very good description is given by Dr. Roberts, in which it is manifest that he is writing from it affecting children. Then he turns to the disease in adults, and says that it is usually considered as *secondary*, though Gee thinks it as common *primary*.

The symptoms are said to resemble those of the affection in children, the most prominent being severe frontal headache, with darting paroxysms, heat of head with redness of face, or alternate flushing and pallor with suffused conjunctivæ; often dulness and mental confusion, tending to somnolence or stupor alternating with delirium; indisposition to speak, sometimes sudden aphonia; photophobia and intolerance of sound; twitchings, ptosis, or other evidence of irritation of the cranial nerves; convulsion, paralysis, cerebral vomiting; coma follows.

Such are the ordinary symptoms, but they vary much in different cases. Hence the disease, very frequently, is not recognised during life. The text-book we have cited contains as much as may be expected to be known to the majority of practitioners. A much more elaborate account of our knowledge on the subject has been given by Huguenin in the twelfth volume of Ziemssen's "Cyclopædia," the English edition of which has been duly reviewed in *The Doctor*. There we find a series of divisions of the pathological appearances, some of which might have been studied to advantage in reference to the defence in the Penge case.

The development of symptoms is usually said to follow a definite order, and authors often speak of the three stages—1, brain irritation; 2, pressure; 3, paralysis. In a typical case this order may be followed; but typical cases are rare, and moreover the disease is insidious in its attack, and not always watched throughout. There are many other difficulties. Cases are, in our own experience, apt to be very obscure, and we may state on the authority of Huguenin, that "*miliary tubercles may be developed in the pia mater without a single symptom during life leading us to suspect their existence.*"

Those whose attention has been roused by the Penge case to renewed interest in this disease would do well to reconsider it from the point of view which preceded that case. They will then be prepared to more critically consider the state-

ments that have been published about it, and which we must proceed to collate.

In the report of the *post-mortem* in the Penge case it was stated that adhesions of the membranes were found, and also adhesion of the pia and brain. These were attributed to previous inflammation, and it was remarked that no appearance of recent inflammation, such as lymph or effusion into the ventricles, was present. "There were some small patches of rough millet-seed like deposit in the meshes of the pia mater, probably tubercular." This description, together with the symptoms observed at the close of life, laid the foundation for the defence, and there can be no question that the opinion of Drs. Bristowe and Payne, that they pointed certainly to death from tubercular meningitis, gave rise to the subsequent action. Dr. Greenfield, who could not give his evidence in court, has since published some important remarks on the case in the *Lancet*, and to his paper we shall now turn, merely observing that Mr. Wilkinson denies in the same journal the existence of adhesion.

Dr. Greenfield cites the symptoms observed during life—drowsiness passing rather rapidly into coma, with stertorous breathing, rigidity of one arm, and extreme inequality of pupils—as pointing to cerebral disease. He adds that "the presence of miliary tubercle in the pia mater, even if in small amount, as seen with the naked eye, is itself a sign of very serious cerebral disease," and that "it is never found after death in cases which have not presented cerebral symptoms during life." In support of this last statement he refers to Bristowe, Murchison, Payne, Wilks, and Moxon, but although he afterwards quotes Huguenin he does not seem to have noticed the remarkable passage we have cited above in italics. He says:—

"In the rarer form of tubercular meningitis, in which the tubercle exists *only* on the convexity of the brain, there is an absence of lymph exudation at the base, and of hydrocephalus; and there *may be* an absence of exudation on the convexity, and of softening of the brain-substance; a condition of extreme engorgement of the superficial veins, of general intense reddening of the pia mater, and a very vascular condition of the subjacent cortex, with more or less of the white matter, being the only sign of early inflammation visible with the naked eye. This also rests on my own observation, and the statements of authority (Huguenin and Gee).

'In this form ('tubercular meningitis of the convexity') death is usually much more rapid than in the commoner form (Gee). Even in the common form the amount of hydrocephalus and of brain-softening is very highly variable, and their amount bears no definite proportion to the severity of symptoms or rapidity of course. When chronic brain disease exists the changes in the brain and the symptoms are often greatly modified (Huguenin).

"The onset of tubercular meningitis in the adult is often much more sudden and unexpected than in the child, and, in my experience, the disease is more rapidly fatal, in some cases only from twenty-four to thirty-six hours elapsing between the definition of the disease and death.

"The symptoms of tubercular meningitis, protean even in the child, are far more so in the adult, in whom they may simulate almost any form of cerebral disease. Drowsiness passing into coma may be the only symptom observed (Bristowe). Precise distinction between the symptoms of meningitis of the convexity and of the base is not possible in all cases. In some cases of the former the symptoms closely resemble those of meningeal hæmorrhage."

After this passage, which we have given textually, Dr. Greenfield examines the several symptoms presented in the Penge case at considerable length. It is unnecessary for us to follow him through these details, as they concern other points in the case. At present we are occupied with tubercular meningitis, and of this disease Dr. Southey (*Brit. Med. Journ.*, October 20, and 27) relates several cases which aptly illustrate some of its aspects. He had previously collected a considerable number with reference to some points of statistics. He finds that "the disease, as we advance in life, is less frequent, and the symptoms are far less distinct than in childhood. In adults the disease begins and pursues its fatal course with singular insidiousness, and is frequently misunderstood, even by experienced medical men until the autopsy reveals its true nature." This opinion, it will be observed, exactly coincides with that we have above expressed, and corroborates the statement of Huguenin.

Some of these cases very aptly illustrate the difficulty of diagnosis (one was received as typhoid), the general secondary nature of the meningeal disease, and other important points. In one most interesting case the true diagnosis was announced in spite of some spots thought to be possibly typhoid, founded only on vomiting, headache, nape-pain, prior spinal disease, suspected to be strumous; temperature 101·6 in the evening, and 100·8 in the morning; no symptoms of typhoid except continued fever and delirium at night, and no pneumonia. There is much in the manner of such patients, the attitude, and other circumstances to suggest cerebral mischief, and, so far as description goes, this seems to have been the case here, and there was the prior spinal disease. This would suggest struma, which, as all will remember, is the most fruitful source of tubercular meningitis. —*The Doctor.*

RECENT CASES OF PARACENTESIS THORACIS.

Dr. George H. Evans (Clinical Society of London), read notes of three cases of pleural effusion which had recently been under his care, in which he had performed paracentesis thoracis, and which cases seemed to illustrate some of the advantages of that operation. 1. 1. A groom, aged 23, was admitted into Middlesex Hospital on April 24th, 1877. His previous health had been good. Three weeks before admission he caught cold; sixteen days before admission, he had felt pain in the right side of his chest, and had become short of breath. On admission his temperature was 101.6 deg.; the respirations were 36. The right pleural sac was obviously full of fluid. On April 26th, paracentesis was performed with Coxeter's aspirating syringe, and seventy-two ounces of clear serum were removed. He improved rapidly in health, and was discharged recovered on May 18th. 2. A saddler, aged 29, was admitted on September 6th, 1877. He had caught cold in November, 1876, was then in bed for four months, and had not since been fit for work. On admission his temperature was 98·2 deg.; the respirations were 20. The right lung was healthy; the left pleural sac was full of fluid. On September 7th, he was punctured with Coxeter's syringe (the syphon action only being used), and thirty-five ounces of rather cloudy serum were removed. Fat globules were found under the microscope in the fluid. He progressed rapidly to health, and was discharged convalescent on September 26th. 3. A porter, aged 32, of previous good health, was admitted on May 24th, 1877. His illness had commenced in December, 1876, with pain on the left side. On admission, the left pleural sac was full of fluid, which had probably occupied it for some months. Temperature 98·5 deg.; respirations 32. He was tapped on May 16th, in the seventh interspace (Coxeter's aspirating syringe), but only fifteen ounces of serum were removed. On June 9th, he was again tapped in the next interspace above, and fifty-five ounces of clear serum escaped. He then gradually improved in condition, and seemed to be doing well, when Dr. Evans ceased attending the hospital at the end of June. On July 24th he was discharged relieved, and made an out-patient. On Dr. Evans's return the man was attending as an out-patient; and on August 15th his left chest was found to be fuller than before. Being re-admitted on August 16th, he was tapped on the 17th, and fifty-five ounces of serum were removed, with immediate improvement in the condition of his chest. He gradually improved in health and condition, with occasional suspicious signs at the upper part of the overworked right lung, which, however, had all disappeared, so that he was now convalescent, and rapidly gaining health and weight. Dr. Evans remarked that, having been for some years a strong advocate and admirer of the operation, he had been surprised to hear of and to read lately observations of much older and more experienced physicians rather in disfavour of the operation than otherwise. Of course he must admit that, in many cases of effusion of serum into a plueral sac, the fluid disappeared without being artificially removed; but he believed that nobody would deny that this process involved usually a considerable amount of time, during which almost absolute rest was a necessary part of the treatment. Now he could not see why one should not considerably shorten this interval by an operation of a very simple and, as far as he had been able to ascertain, harmless description. He believed that the old doctrine suggesting that the admission of air into the cavity during or after the operation would probably lead to the serous effusion becoming purulent was now exploded. At all events, he had never seen or heard of such a case, though he knew of certainly one and probably two cases in which the delay or neglect of paracentesis had been followed by a change from serum to pus, indicated in the one case, which he had followed throughout, by a rigor and afterwards a constant hectic temperature. As to the advantage of shortening the period during which fluid remained in the chest, one of the cases, No. 2 afforded an instance. The day before he was seen by Dr. Evans, he had, by the advice of his medical attendant, consulted an eminent hospital physician, whose advice was to the effect that he should rest for a month and then see him again, with the view of some action being taken in case the chest should be still occupied by fluid. Owing to the advice of a friend whom he met in the street, he came as an out-patient to the Middlesex Hospital, where, being admitted, he was at once tapped, and in three weeks afterwards sent out in good health.

Dr. Cayley referred to the frequent occurrence of tubercle in cases of hydrothorax, the tubercle developing in the lung the pleura of which had *not* been attacked by the inflammation. He conconsidered the cause of this to be the protracted hyperæmia, and that an early removal of the fluid by lessening the hyperæmia would likewise lessen the chance of tuberculosis.

Dr. Williams referred to the advantage of early aspiration, and said he had never seen evil results from the operation.

Dr. Southey said the profession would greet any explanation of symptoms by which a line might be drawn so as to at once determine in what cases of serous effusion the fluid should be evacuated. Often fluid was absorbed in a few days, and surely in such cases the operation was unnecessary. He would not advise tapping of the chest unless the effusion had remained long in a chronic state, or should the disease be still active, not unless

the fever was increasing, the tension severe, the urine very small in quantity. He then preferred the insertion of a trocar with an india-rubber tube attached, one end of which was under water, by which means no organ would be enabled to rid itself of the tension without the danger attendant upon the removal of excess of the fluid.

Dr. Jas. Pollock waited a month in chronic hydrothorax before proceeding to operate. He then preferred the elastic tubes to the aspirator.—*The Doctor.*

INTESTINAL OBSTRUCTION, ENTEROTOMY.

BY W. S. GREENFIELD, M.D., ST. THOMAS'S HOSPITAL.

The treatment of intestinal obstruction by the operation of opening the abdomen, searching for the cause of obstruction, and if possible relieving it, has as yet been tried in so few cases that its value as a remedial measure cannot yet be determined. The gravity of the operation, the uncertainty which must always exist both as to the exact nature and seat of the obstruction, and more than all the doubtful issue even if the obstruction be found and relieved, usually prevent the physician from counseling, and the surgeon from performing the operation until the patient is *in extremis.* In the present state of our experience it seems to be a duty to place on record all cases, whether successful or not which may throw any light upon the subject, or serve as a warning in future cases. The present case is an example of the dangers of delay, however short, when the diagnosis has become tolerably clear. It shows, too, how readily an otherwise fatal strangulation may be relieved by operation.

The patient, a man of about 60 years of age, was admitted to St. Thomas's Hospital, under my care (in the absence of Dr. Murchison), on August 5th, 1877. But little information was gathered as to his previous history, and that little did not throw much light upon the case. He was married, had eight children, and gained his living as a street musician. Up to the time of his attack he had enjoyed fair health, though not strong; and he had never suffered from any similar symptoms previously.

On the night of Tuesday, July 31st, he went to bed in his usual health, but woke at 2 A.M. on August 1st with severe pain round the navel, more especially towards the left side. This pain, as he described it, was not of simple colicky nature, but was severe, occupying a limited area, and distinctly localized in a region just to the left of, and slightly above the umbillicus. In a very short time he began to vomit; the exact period could not be ascertained, but it was within an hour or less from the onset of the pain. This vomiting continued at frequent intervals; was aggravated by food or drink, but occurred independently of it. The bowels were scarcely open at all before admission —no very exact information on this point could be gathered from the patient; but it is probable that they were open once or twice slightly. The little fluid which he took consisted chiefly of milk and limewater. His wife noticed that he passed very little water from the time of being taken ill. These symptoms persisted with but little change during the four days which preceded his admission, the principal alteration being that the pain considerably abated, though it did not entirely cease.

He was admitted at 11 A. M., on Sunday, August 5th, and I saw him at about 12 30 noon. Pulse 90, regular—temp. 98°. Tongue clean, moist, pink. Vomits frequently, but in very small quantities (only a tablespoonful at a time), thin light brownish fluid, nearly clear, but with a few small brownish flocculi deposited on standing; colour very slightly offensive and sour, but not distinctly stercoraceous. The abdomen but little, if at all abnormal in appearance, neither obviously distended nor retracted; walls thin and flaccid. Respiration abdominal, but shallow. There was an entire absence of inequality due to distended coils of intestine, the surface was of the normal smoothness and uniformity. No tenderness on slight pressure at any point, nor for the most part on deep pressure or manipulation, but on firm pressure over a limited area to the left of and slightly above the level of the umbilicus the patient complains, and evidently suffers severe pain, which nearly ceased when the pressure is discontinued. In this position, too there is a certain feeling of slightly increased resistance, but no tumor can at any point be discovered. Abdomen generally resonant, perhaps at this point slightly less so, but with no marked difference in degree. No sign of hernia in the usual positions, no enlargement of glands in groin. The rectum was afterwards explored by Mr. Nicholson, the House Surgeon, who reported that there was no sign of cancerous growth.) An enema of olive oil had already been given and had brought away a small quantity of dark fluid fæces.

I therefore ordered half a grain of opium, and one grain of extract of belladonna in pill every three hours, an enema, and iced beef tea and brandy in small quantities by the mouth.

Monday, August 9th, 11 A. M. Patient is decidedly more prostrate, vomits frequently, but in very small quantities, fluid of the same character as before, or of rather yellower colour. He appears slightly drowsy, pupils not all contracted; is said to have vomited all the pills immediately on taking them. Extremeties colder and hands slightly blue; pulse more feeble, rapid, and small —about 108 per minute; temp. last night 99°, this morning 98°; tongue slightly dry; patient now lies down, does not sit up as yesterday. No urine

has been passed since admission, and there has not appeared to be any at the bedside. Three enemata have been given but with no effect. The abdomen is now slightly more than yesterday, but entirely free from signs of distension, and to appearance of a natural size of stomach. Pain has now entirely ceased, but on pressure there is tenderness exactly the same portion as before. No other change in the physical signs, and no drawing up of knees. Rather vermicular movements are now seen very evident.

At 3 P. M. Dr. Bristowe kindly saw the patient, and advised an operation. Ether having been given, a median incision was rapidly made through the abdominal wall, nearly three inches in length, the umbilicus being in the centre of it. After dividing the peritoneum on a director, a coil of distended small intestine came into view; this was traced downwards and a constricting band almost immediately discovered a little to the left, and below the umbilicus, apparently connected with the mesentery. I easily tore this through with the finger, and a strangulated loop of gut, with the seat of constriction deeply marked on its surface very dark purple in colour, but of glistening surface appeared in the wound. The intestine did not protrude, there was no difficulty in the operation, and the seat of constriction was discovered without delay. So far as the surgical procedure was concerned, its aim was most speedily and successfully accomplished, but the patient died before he could be removed from the operating table. Artificial respiration and intravenous injections with other restorative measures were tried for some time but without effect.

A *post mortem* examination was made at 9 A. M. August 7th, ten hours after death, by Mr. Mac Cormac and myself. On opening the abdomen the upper part was seen to be occupied by slightly distended coils of small intestine, the omentum being slightly drawn up to the right side. Occupying a position just below and to the left of the umbilicus an intensely congested loop of small intestine, which, when unfolded, and seperated from the mesentery measured about six inches. At either end of this loop was an obliquely transverse pale line the mark of the constriction. The strangulated loop was of dark purple colour, from intense congestion, but not yet sloughing, it felt thickened, firm and fleshy compared with the rest of the bowel. The corresponding portion of the mesentery was also intensely engorged, and there were ecchymotic patches in other parts of mesentery adjacent. On close inspection very slight incipient peritonitis was seen in the neighbourhood only of the strangulation. The peritoneal cavity contained about 2 ounces of port-wine-coloured fluid. The small intestine below the seat of strangulation was contracted and empty, but not tightly contracted or notably pale; that above was distended and filled as also the stomach with thin greenish fluid of ordinary stercoraceous character.

On very careful search no sign of the constricting band could be discovered. Some portions of the mesentery looked thickened and pinkish, and as if torn across, but no other condition could be found to give rise to the strangulation. On removal and opening of the bowels the upper extremity of the strangulated portion was found to be exactly six feet from the pylorus. The whole of the tissues of the strangulated loop were intensely gorged with blood the venular connexions especially engorged, and presenting some superficial erosion of the mucous membrane, forming yellowish-white lines.

The case illustrates very forcibly the importance of operating as early as possible when the nature of the case is decided or probable. But since in all such cases the diagnosis both of the nature and seat of the obstruction are of the highest importance, I may briefly discuss the grounds on which the diagnosis was based.

Pain.—It is well known that the pain in intestinal obstruction if the obstruction be at all acute, is usually referred to the umbilical region whatever the seat of the lesion. But here we had to do not with an ordinary pain, but with distinctly localised pain, increased on pressure, and made to recur by pressure after it had nearly gone. The position of this pain, and of the apparent slight swelling which accompanied it, rendered it probable that neither the lower part of the ileum nor the ileo-coecal valve were involved.

Vomiting.—The early occurrence of vomiting is related perhaps rather to the suddenness and severity of the obstruction than to its position. But other things being equal, early and severe vomiting is more likely to occur when the obstruction is situated high up than when low down. But of perhaps greater importance is the fact that the vomit became very scanty even before admission, and that its characters were not those usually observed when the lower part of the small intestine is the seat of obstruction; and that supposing the strangulation to have been severe enough to cause so early vomiting, the other symptoms would by that time have been much more severe.

Suppression of Urine has often been regarded, since Dr. Barlow first drew attention to it, as a sign of the high position of the obstruction. The view which is now more commonly advocated, and which is endorsed by Dr. Bristowe in his article in Reynolds "System of Medicine," is that suppression of urine is rather a sign of severe and sudden obstruction. It would therefore be presumptuous in me to offer any opinion against such distinguished authority; but I must confess to a bias towards the belief in the accuracy of Dr. Barlow's observations whatever explanation may be given of the facts. Thus much I may add, that I have never seen, either in strangulated hernia or in intestinal ob-

struction, so complete a suppression of urine as in the present case, nor have I ever seen an obstruction so high up in the bowel. It has appeared to me that whilst suppression or retention for twenty-four to forty-eight hours is not uncommon when the obstruction is low down in the small intestine or in the cæcum, sigmoid flexure or rectum there is very rarely any actual suppression for so long or at so late a period as in the present case.

But by far the most valuable and decisive indication of the high position of the obstruction was the almost entire absence of general swelling of the abdomen and of visible distension of coils of intestine. This was indeed so remarkable that doubts were expressed by good and competent observers as to the reality of the obstruction, they were inclined to consider that the vomiting was due to colic or some other cause when the patient was admitted.—*The Prdctitioner.*

SYME'S AMPUTATION AT THE ANKLE-JOINT.

BY E. D. HUDSON, M.D., NEW YORK.

The amputation at the ankle-joint (tibio-tarsal) originated by Mr. Syme is one of the triumphant achievements of the art of surgery for the cause of humanity. It is an operation which perfects the surgery of the inferior extremity, and one which is free from the disadvantages and defects pertaining to nearly all amputations of the foot and leg. The history of this amputation (Syme's) during the past twenty-five years, as performed by scientific and expert surgeons, affords conclusive evidence of its advantage to the patient, and demonstrates its superiority in conducing to comfort and usefulness to every other amputation of the foot or leg. It is the least disabling, the least incapacitating, and with scientific prothetic apparatus the patient scarcely realizes any loss of limb. The end of the stump is painless and an enduring basis of support, reliable for any degree of pressure and service, and equivalent in conditions and functions to the heel of the unamputated foot.

The merits of a well-performed Syme's amputation can not be exaggerated. The subject of this operation simulates the whole man more perfectly than the subject of any other. I am able to sustain this assertion by tabulated records of two hundred cases, of which I have personal notes.

My first observation of ankle-joint amputations, and experience in adapting apparatus thereto, was in the year 1853. I was requested by Dr. J, M. Carnochan, Surgeon-in-Chief of the New York State Emigrant Hospital, to give my attention to the first case of ankle-joint amputation performed in this country by the doctor upon one of the hospital patients. Dr. Carnochan had but recently returned from Edinburgh, where he had been a pupil of Mr. Syme, and had become acquainted with his improved amputation at the ankle-joint and his mode of performing it. I examined the case with prejudice and as a critic, regarding it a bold and doubtful innovation, a departure from the best authorities on surgical practice; but the anatomical construction of the stump, its pathological condition, and its capacities for future usefulness with suitable prothetic apparatus, impressed me most favourably. The immediate and the permanent results of that first case were all that could be desired.

In 1854 Dr. Stephen Smith, Surgeon to Bellevue Hospital, performed the second operation in this country of Syme's amputation at the ankle-joint on a girl at the hospital. I was present by invitation. It was a marked success; an honor to the surgeon and an inestimable benefit to the patient. She subsequently acted as a nurse in the wards, and was suspected by but few to be the subject of an amputation. This was the famous Kate Riley case reported in the New York Medical Journal at that time. Her walk and appearance in every respect were natural, and she experienced neither pain nor unusual fatigue. The most hostile and skeptical were silenced.

These two cases of operation at the ankle, and the successful and modified amputations at the knee-joint as revived and performed by Dr. Markoe, eradicated my prejudice against joint-amputations. The only deductions from the facts and cases presented were that the operation was *sufficient;* that it should be performed whenever the circumstances would permit; that it should be the preference of the surgeon in every instance of amputation of the lower extremity when he has the choice of site, whether a favourable or unfavourable condition of the tissues supplying the flap covering the end of the stump existed.

Every day's observation and experience during the period of twenty-four years has confirmed my judgment of the wisdom and benefits of the Syme amputation, as demonstrated by the subjects. Of some two hundred cases of tibio-tarsal amputation after Mr. Syme's method, or as modified by retaining the articular surface of the tibia, with which I have been concerned in consultations, operations, and ultimate reparative treatment with compensative prothetic apparatus, all, without an exception, have resulted either immediately or remotely an entire success. Some few, either by reason of the extent of disease, injury, or shock, or other events to which surgical cases are exposed, underwent sloughing and healed by secondary intention, but in the end invariably yielded good stumps and solid bases of support. They were free from any degree of iritability, tenderness, abrasion, or ulceration, and proved eminently more serviceable than would

the same number of cases of ordinary amputation of the foot or leg. . . . .

The invariable utility of the Syme stumps has demonstrated the physiological capacity of the base of support which it gives for any amount of service and weight. A gentleman suffering gunshot injury of the foot, and undergoing Syme's amputation at the hands of Prof. W. H. Van Buren, has repeatedly walked thirty miles continuously, upon gunning excursions, without his companions suspecting the defect in his limb. One of the earliest subjects of Mr. Syme's amputation visited me, sixteen years after the operation, for reparative apparatus, and reported his stump at all times serviceable and reliable. He, too, had travelled as far as thirty miles in one day, with the aid of a leather appliance, the "bucket," or shoe.

A Scotchman who had undergone a double Syme's amputation by Mr. Lister, of Edinburgh. in 1859. for comminuted fracture of both feet, emigrated to this country in 1869, and visited me for apparatus. With only leather buckets or cups for his stumps, and a cane with which to balance himself, he had subjected his stumps to daily hard usage. Finally, with the appropriate apparatus constructed to represent the functions of the foot, his walk was easy and stable without the use of a cane, and he has ever since been actively engaged in agriculture. . .

No amputation of the leg or foot should be substituted for the Syme when it is admissible, *save that of Lisfranc.* No improvement upon the Syme method can be made by any complex mode of operating, as the section of the cancellated structure of the end of the tibia and of the calcaneum for union thereto. I have had much experience with stumps so constituted—method of Pirogoff. Some of them have been well formed, and were far more serviceable than the stump of any leg-amputation; but where any considerable portion of the calcaneum has been annexed they have proved uncouth in form. resembling a horse's foot, and afford comparatively a poor and painful base of support. Some have resulted in a false joint, and retraction of the appended part; others in necrosis of the continuity of the tibia above the annexed portion of the bisected os calcis.

The plea is often made that the increased length of stump produced by the appended portion of bone affords a superior advantage *to the poor man*; a false plea however. and better suited to medieval surgery. If for the poor man the bucket arrangement is alone available, an elastic wool felt pad, half or five eighths of an inch thick, in the bucket will be amply sufficient to offset any advantages afforded by the appended calcaneum, and the patient with the Syme stump obtains a more even and reliable base of support. As an alternative to the methods of Chopart, Pirogoff, or Quimby's modification, or a leg amputation with periosteal covering of the end of the stump, a large experience and extensive critical observation convince me that the *tibio-tarsal*, or Syme's method, *is the most useful and worthy.—Louisville Med. Times.*

ON RUPTURE OF THE MEMBRANES IN LABOR.

Dr. William Stevenson, Professor of Midwifery in the University of Aberdeen, in an article in the British Medical Journal, proceeds to discuss the diagnosis of the conditions which warrant us in having recourse to rupture of the membranes before the full dilatation of the os. The first point is the determination of the degree of expansion of the lower uterine segment. We have seen the size of the external os is no criterion of expansion. The os, in fact, may be very small, and yet expansion may be complete. It is by the internal os that we can best judge; but this is hard to reach, and difficult to determine its exact site. There is one means, however, of ready access, whereby we can form a proximate opinion; it is the degree of dilatation or updrawing of the vaginal cul-de-sac. This is a point which has been entirely left out in the consideration of the progress of the first stage. It is a matter of common experience to find, in the class of cases where we feel something is required to promote a labour with tardy dilatation of the os, that the upper part of the vagina is well expanded and drawn up, greatly increasing the perceptible diaphragm of the cervix, which alone obstructs the continuity of the developed canal. Now, we know that the longitudinal muscular fibres of the vagina run upward, and are continuous with those of the body of the uterus, and that the attachments of the uterus in their upper portion correspond with the internal os. This portion, then, can not undergo expansion without carrying with it the tissues which are in connection therewith. Consequently we find that as the first stage of labour advances the upper part of the vagina is dilated until it seems to coincide pretty closely with the upper part of the bony canal. When, therefore, a considerable portion of the lower segment of the uterus can be felt in the vagina, and not merely through its walls, expansion is certain to be complete, whatever may be the size of the parturient ring; and the tissue composing it are those of the cervix proper, and not the uterus. Under such circumstances I believe the membranes may be ruptured with advantage. It is, however, unnecessary in many cases to wait for the full development of the condition above described. I have taken the extreme state, as being most readily understood, and indicating the direction in which our observations should be made.

Another class of cases, or it may be only an additional character to those of the first, are where the action of the uterus seems to be effecting not steady

dilatation, but extreme thinning of the tissue of the cervix; and also where the head is felt to be in close contact with the parturient ring, there being little or no bag of waters.

The next point to be considered is the quantity of liquor amnii; not the actual quantity, as is generally referred to, when speaking of its being present in excess, but the proportion its amount bears to the size of the child, and also to the capacity of the amniotic sac. This latter is rarely quite filled; otherwise it would remain much more tense than it usually does in the intervals between the pains. If it be nearly or entirely distended, it will interfere with the power of restitution of form, by preventing alteration in the form of the uterus, and consequent action on the fetus, even though the actual quantity of waters is not greater than ordinary. In this circumstance it must be regarded as really in excess, quite as much as where there is excess in actual quantity. Undue tension, therefore, of the membranes during a relaxed state of the uterus must be regarded as unfavorable to the mechanism of labor, and as warranting an earlier rupture of the membranes than under other circumstances.—*Philadelphia Reporter.*

ASTHMA NERVOSUM, SUCCESSFULLY TREATED WITH ARSENIC-INHALATIONS AND GALVANISATION OF THE VAGUS NERVES.*

Within the last six years, seven cases of nervous asthma have come under my observation, and I believe them to be of sufficient interest to be recorded as illustrations of an obstinate and distressing disorder of a true nervous nature having been speedily relieved and permanently arrested by electricity and arsenic-inhalations.

Case I.—W. M., of Prestwich, near Manchester, consulted me on October 26th, 1871. His age he stated to be twenty-three; he has enjoyed a liberal education and good living, his parents being wealthy merchants in the city. At fourteen, he had pneumonia, and since that time, now nine years, he was subject to frequent attacks of asthma. Lately, he had them every night. They generally came on him suddenly in the evening before bedtime, and lasted through the greater part of the night. The attacks commenced with a sudden feeling of suffocation, want of air, and great anxiety; and ended with coughing and sneezing, and with more or less of thick mucous discharge coming out through the mouth and nose. In daytime and in the interval between the attacks, he felt quite well, and his breathing was free and easy. He had tried various drugs, chiefly narcotics and antispasmodics, but without any good effect. He had frequently changed his residence; travelled and spent some time in France, Germany, Portugal, Italy, Switzerland; but nowhere felt benefited. At Heidelberg, he experienced some relief from the use of compressed air in the pneumatic chamber, and also felt better during a twelve months' stay at Lisbon. Whenever he returned home, the attacks came on in a more aggravated form,

My plan of treatment was the following. At first, I ordered a large dose of muriate of quinine (ten grains) to be taken every evening before the expected attack, which periodically reappeared at the same hour before bed-time. The result was a later outbreak of the attack, which awoke him after a few hours of sound sleep. I then ordered spray-inhalations of arsenic twice a day, and in gradually increasing doses, changing now and then the preparations. The following were used in succession: Arseniate of soda (one-sixth to one-half grain); arseniate of potash (Fowler's solution, half a drachm to a drachm); arseniate of ammonia (one-quarter to one-half). To the inhalation, I at first added tincture of datura tatula, but soon had to leave it out, as it produced symptoms of narcotic poisoning. The arsenic-inhalations were administered during the first two months twice a day; the third month, once a day; the fourth month, three times a week; the fifth month, twice a week; and after the fifth month, the inhalations were entirely discontinued. Considering my patient's disease to be of a nervous character, and believing the pneumogastric nerve to be the chief actor, I decided from the first to try also the effects of galvanisation. I selected the continuous current derived from Althaus' battery, with fifty small Smee's cells, of which I used at first five, and gradually and carefully increased to thirty cells. A wet sponge, dipped in tepid salt-water, and connected with either of the electrodes, was applied to the skin of the neck; that connected with the positive pole I put to the submaxillary fossa, along the inner edge of the sterno-cleido-mastoid muscle; and the other sponge, connected with the negative pole, I placed close to the trachea and near the sterno-clavicular articulation. I galvanized each nervus vagus separately from two to five minutes. Galvanisation was applied daily for six months.

The attacks at first changed the hour; instead of 7 P.M., they awoke him every day at 4 A.M, but were of a milder character. The attacks returned nightly from October 26th to November 3rd; then again, November 7th, 18th, 20th, 21st, and 25th; December 3rd, 15th, and 29th; and lastly, January 17th, 1872. He continued the treatment till May, 1872, but had no more attacks since January 17th 1872; and continues free from any asthmatic symptoms to this day, for more than five years and a half. He is actively engaged in business in

* Read by Dr. Wahltuch before the Medical Section at the annual meeting of the British Medical Association in Manchester, August, 1877.

Manchester, and frequently travels on the continent; but continues to enjoy very good health in all seasons and climes. I am, therefore, justified in considering him permanently cured, and believe the chief remedial agents to have been the use of galvanism and arsenic-inhalations.

CASE II.—T. W. K., of Bowdon, Cheshire, consulted me September 4th, 1872. He was engaged in the Manchester trade, and twenty-five years old. When a child, he frequently had croupous attacks. When fifteen, he had gastric fever, and subsequently pneumonia. Three years ago, he had slight pleuropneumonia, and since that time he had suffered from frequent attacks of dry nervous asthma. The attacks occurred at all times, but chiefly in the night. Crowded rooms, sea or mountain-residence, any change of air, would bring on an attack. In the intervals, his breathing was free and easy, and he had no cough. After the attacks, he expectorated thick mucous discharge. His chest was broadly built; respiration was audible and clear all over the thorax; the percussion sound was normal; the cardiac sounds were clear; the uvula and epiglottis were large, but of a healthy appearance.

I ordered arseniate of soda inhalations, and applied daily the continuous current to both nervi vagi, in a similar manner to that described in the first case. The treatment continued during a month, he having had only one mild attack in the beginning. I saw him lately, and he told me that he had no attacks during nearly five years since I attended him.

CASE V.—Miss E. H., of Bowdon, Cheshire, aged 42, has been under my observation since June, 1876. She suffered for eight years from severe attacks of nervous asthma, and is also subject to bronchial catarrh. She used to have frequently abscesses in the lower part of her back, but had none since August, 1875. Has had ulcerated tonsils eighteen months ago. The asthmatic attacks came suddenly in her sleep, generally between 2:30 and 6 A.M.; but any exertion or a rich supper would bring them on. She has frequently pains in the back of her head and neck. Menses regular. Appetite moderate. Bowels sluggish. I saw her both during the attack and also in the intervals. Dry whistling *râles* could be heard everywhere during an attack; but in the interval, although the breathing was free and easy, moist *râles* were audible in the scapular region of the thorax. The attacks resembled those described in my other cases.

The treatment consisted in galvanisation of the nervi vagi, and in spray-inhalations, chiefly of arsenic, and also of various additions at different times, such as chloride of ammonium, tincture of datura tatula, ozonised sea-salt, salicylic acid, and cherry laurel-water. She had attacks June 30th, July 11th and 13th, September 15th, December 4th, 1876, and the last time, January 17th, 1877. She also had two attacks of acute bronchial catarrh in September, 1876, and February, 1877, which I treated with Iceland-moss poultices applied to the whole thorax, and the internal administration of expectorants with belladonna; stopping inhalations and galvanisation during the bronchial affection. She is at present in a much better state of health than for years, and no spasmodic attack since January last.

REMARKS.—The treatment of nervous asthma by galvanisation of the pneumogastric nerves, and also by spray-inhalations of arsenic, seem to me to be very efficient, as, of seven cases under my observation, five were permanently cured and two greatly benefited. Four of my patients suffered from nervous asthma only, and three had, in addition, bronchial catarrh. One case was also hereditary, her father and sister being subject to asthma nervosum.

Galvanisation has been used with brillihnt success for the treatment of two cases of true nervous asthma by Dr. Althaus (*Treatise on Medical Electricity*, second edition, London, 1870, page 522); also by Dr. Benedikt, of Vienna, in one case (*Electrotherapie*, Wien; 1868, page 309); and by Dr. Brunner, of Warsaw, in four cases lately published (*Sovremennja Medicina*, Warsaw, 1897, Nos. 1-4).

Successful cures of nervous asthma have been effected with arsenic-inhalations by Dr. Wistinghausen (*Petersburger Medicinische Zeitschrift*, 1862, page 137), and also by Dr. Lewin (*Inhalationstherapie*, Berlin, 1865, pp. 443-445).

I am of opinion that the two methods of treatment by galvanisation and inhalation may be safely combined, and ensure permanency in their beneficial effects.—*British Medical Journal.*

CONOID CERVIX, RESULTS AND TREATMENT.

The external os is the most usual seat of the constriction and obstruction in conoidal cervix. This arises from the peculiar pointing of the infravaginal cervix, together with an excessive development of the circular fibres.

The os internum is found constricted, however, in associated anteflexion. Such a malformation may have arisen, and ordinarily does in such instances, at the period of the second, the pubertic development of the uterus.

The first and most prominent symptom of the conoid cervix is dysmenorrhœa. From the nature of the malady, we would expect the pain to be characteristic, viz.: expulsive, bearing down, like labor-pains; preceding the flow, and diminishing as it ceases. Whether it is so or not will depend in part upon the quantity of the flow, and

the extent of the obstruction. These symptoms are not altogether to be relied upon in determining the local condition, for they may resemble the neuralgic or congestive forms of dysmenorrhœa. Bearing in mind the secondary organic changes liable to ensue from obstructed menstruation, we naturally look for this sooner or later. It is doubtful whether a distinct variety of dysmenorrhœa in any of its forms, can exist for any length of time in its purity. One and then another variety is almost necessarily engrafted upon the original. Thus, for instance, obstructive dysmenorrhœa leads to congestive, and then to neuralgic.

Again, while menorrhagia is often a functional disorder of the uterus, resulting from obstruction, in time, after years of suffering, this function may be quite suspended, so short is its duration, so scant is the flow. Such a change, the effect of atrophy of either uterus or ovary, or both, means that there is no longer an obstruction, but worse still, the irreparable mischief has been done.

Considering the results which may follow in any given case of well-marked conoid cervix, really this malformation is a very grave one, not simply so far as the monthly pain is concerned, but also the denial of the procreative power of the patient, and still more, the serious inroads the local mischief may entail upon the whole general health.

Pain may not be limited to the menstrual time, but be constant from secondary complications, the chronic congestions and inflammations of the uterus and its appendages. Fatal retro-uterine hæmatocele or pelvic peritonitis may supervene.

Sterility, like dysmenorrhœa, is present in the vast majority of the cases of conoid cervix. These two functional disorders go hand in hand.

Of the vast number of causes of sterility in the female, perhaps there is no more common one than this under consideration. Fortunately, too, it is the most remediable, if of not too long duration, and if before secondary changes have occurred in the endometrium with chronic catarrh; or chronic ovaritis, with morbid or suspended ovulation; or finally, atrophy of either uterus or ovary. Not all of these changes are apt to ensue in a single case, but such is possible, if the obstruction is sufficient and the duration great. * * *

This operation is practiced by incising the cervical walls on either side from os internum through os externum. The incision is superficial above, but as it extends downward is gradually deepened. The fibrous tissue is not cut through and through, from out to out, in the infra-vaginal portion of the cervix as some have recommended, but the extent of the new opening at the base or so externum is about one-half inch. Allowance is thus given for contraction which necessarily follows in the process of cicatrization. In fact, care is to be taken that the subsequent contraction does not go too far, with a return of the parts to their old faulty condition. To guard against this, the use of the vulcanite stem after the incision, or the occasional passage of the sound is needed. This operation has been a much abused one. While subject to great abuse, it is a very useful one in properly selected cases, and if properly performed.

Compared with dilatation by means of tents or expanding instruments, as dilators or bougies, it is infinitely superior. The result desired is more promptly attained in a less painful manner, and is vastly more permanent. Really, in cases of this kind, dilatation by tents, etc., should be discarded. The methods of Simpson and Sims consist in cutting the cervix through and through. Such procedure has a very strong tendency, it must be confessed, as shown by Peaslee, to destroy the natural tonicity of the cervix, deform the shape of the uterus, leaving an open, gaping os, an everted cervical canal, with chronic catarrh, a condition itself of things leading to sterility; or, if conception possibly does occur, one favorable for abortion. Besides, the danger of the operation is materially increased. The only recompense for the above evils is the relief to the dysmenorrhœa.

There is no better instrument for this operation than the knife of Sims, or one with a similar blade with fixed handle. I am in the habit of using the latter. All of the various metrotomes of *Greenhalgh*, *Routh*, *Simpson*, and *Atlee*, with shielded blades and worked by spring or screw, while they do credit to the originator and instrument maker for their ingenuity and workmanship, are costly, clumsy, uncertain in action and dangerous in practice. The dangers of the operation performed in the manner recommended, unless there are special contra-indications, are very slight. The results are gratifying, usually, as to the relief of the dysmenorrhœa. Sterility is not, however, by far so frequently overcome, though success covers no small per cent. Too often the secondary changes referred to have taken place in the cavity of the body of the womb, or in the ovaries themselves, barring relief to the sterility.—*Dr. Palmer, Clinic.*

TRAUMATIC NEURITIS INVOLVING THE BRACHIAL PLEXUS.

The following case, which was observed at the Hospital of the University of Pennsylvania, in the service of Professor H. C. Wood, is of considerable interest because of its severity, peculiar character, and the favourable result of treatment.

J. D., aged 32, two years before coming under observation, had his left arm caught in a belt and was carried several feet from the floor. The arm was broken about the wrist, the middle of the forearm, and near the shoulder. It was also badly twisted, and since the accident had been entirely

helpless. He could not move the arm, forearm, or hand in any direction. On attempting motion, pain and violent tremor would ensue. He carried the hand in a sling. The limb was somewhat wasted, but did not present the extreme atrophy which is noticed in some cases of spinal or nerve injury.

From an irregular line around the arm about two inches above the elbow, a district of highly-marked hyperæsthesia extended upward, including, when he was first seen, the outer part of the shoulder, and afterward spreading until it embraced the left breast, side, and back, in the scapular and supra-scapular regions. He had constantly considerable pain in the hyperæsthetic area, and touching or handling him gently would cause extreme suffering, and bring about fibrillary twitchings in the thoracic muscles. The pain and hyperæsthesia usually got much worse in the evening and during the night.

From the line of demarcation, two inches above the elbow downward, the limb was anæsthetic. Analgesia, or lose of the sensation of pain, seemed complete. Compass points could be jabbed into his forearm and hand with impunity; and to the same parts a strong faradic current could be applied without causing the patient any pain or inconvenience, unless the application was so made as to jar the entire limb. Electro-contractility was good. The skin was pale and smooth-looking.

The third and fourth dorsal vertebræ became tender to pressure while the case was under notice; and when at its worst, slight hyperæsthesia was present on the *right* side of the spinal column, in the scapular region.

This patient had been subject to epileptic seizures for twelve years. They were supposed to have originated from sunstroke. Since the accident to his arm they had been less frequent and less severe. He had never had any form of venereal disease.

The treatment pursued in this case has extended over nearly ten months, and will be briefly summarized. Bromide of potassium was given, mainly with the view of controlling the epileptic attacks. Iodide of potassium and the bichloride of mercury were administered for several weeks. At one period he was blistered over the dorsal vertebræ, and later the actual cautery was repeatedly applied. Morphia was sometimes used by the mouth or hypodermically. Galvanization of the hyperæsthetic district was employed. A weak current, usually from about five cells, was employed, applying one rheophore, generally the cathode, to the cervical spine, and the other to the affected region. The application nearly always relieved temporarily the pain and hyperæsthesia.

Six months after coming under treatment the patient was, on the whole, rather worse than when first seen, although he had several times temporarily improved. He was then ordered to use by inunction upon the arm and shoulder about a drachm daily of a prescription containing equal parts of ointments of mercury, iodine, and belladonna. Four weeks after beginning this treatment the pain left his arm and side, the hyperæsthesia and anæsthesia also rapidly disappearing. He steadily improved, and has now, nearly three years after the accident, made a complete recovery from the neuritis. The motions of the shoulder, arm, forearm, and hand, have all returned, and under faradization the muscles are all rapidly regaining tone and strength. A few days after the improvement set in, his mouth began to show signs of mercurialization; but the inunction was continued until well-marked salivation was produced. Chlorate of potassium and cinchona were subsequently employed to relieve the ptyalism.

Remarks.—In this remarkable case some of the great branches of the brachial plexus were probably severely injured, by torsion, tearing, or pressure, at the time of the accident. The neuritis which was set up seems to have radiated to nearly all the nerves of the plexus, as well as to other nerves, and involved, to a limited extent, the spinal cord. The neuritic process even appeared at one time to have extended across the spinal cord to the right side. The inflammatory condition of numerous nerves and their branches was doubtless the cause of the pain and hyperæsthesia, while the total anæsthesia below can be explained on the view of Niemeyer, that inflamed nerves are bad conductors, and hence convey peripheral impressions incompletely, or not at all, to the brain. Whether the cure was spontaneous, or the result of the treatment by inunction, the reader may judge for himself. For myself, I believe that it was in great part, at least, due to the treatment. According to Erb, the sovereign remedy for all the more chronic forms of neuritis is the galvanic current; and I have myself found it of great service, both as a palliative and curative agency. In the case just reported, galvanization with a weak current would relieve the pain and hyperæsthesia more effectually and for a longer time than any other remedy; but it was difficult to carry out the electric treatment with absolute regularity, and to include every portion of the wide neuritic area in each application.—*Dr. Mills, Medical Times, Philadelphia.*

VOMITING IN PREGNANCY SUCCESSFULLY TREATED WITH INGLUVIN (VENTRICULUS CALLOSUS GALLINACEUS).

I was called to see Mrs. S., aged 27 years, June 8, 1877, who stated that she was suffering from constant and excessive nausea, which was only relieved upon assuming the recumbent posture.

This continued, gradually increasing from day to day, until in a week it eventuated in retching and emesis, during which watery matter with an acid taste, followed by bile, was ejected. This reached such an extent that the patient had hardly any freedom from it during the whole twenty-four hours, vomiting as often as twelve times a day.

Taking this in connection with the suppression of the menses, I concluded she was pregnant, and obtained from her the following history:

This was her third pregnancy. With the two preceding ones she suffered quite as much as with this, and, according to her statement, "had employed the services of several physicians, who administered almost every medicine in the pharmacopœia," but without avail, and she was obliged to lie in bed almost the entire nine months, in order to obtain relief from vomiting.

I proceeded to treat her in the orthodox way; advised the administration of a gentle cathartic, gave carbonic-acid water freely, and prescribed the following:

℞

Bismuthi subnit..... ʒ j.
Pepsinæ sacch..... ʒ ss.
Cerii oxalat..... gr. ix.

M. In chart. No. vj. Div. et sig. one every two hours in carbonic-acid water.

This was not followed by the slightest remission in the symptoms.

I then doubled the quantity in each powder; this also failed.

I finally increased the subnirate of bismuth to ʒ i. doses every three hours, also highly spoken of. Various hygienic measures, as well as some other medicines, were resorted to, but all failed to bring about the desired relief.

About this time my attention was called to the preparation *ingluvin*, recommended in cases of this kind, and I determined to try it at once.

I prescribed *five grains* of Warner's ingluvin every two hours, and continued this for three or four days without any appreciable result other than diminishing the violence of the attacks of retching and vomiting.

Increased the dose to *ten grains* every two hours. This seemed to relieve my patient to such extent that she only vomited before meals, at the sight or smell of food.

I then increased the dose to seven grains, giving it half an hour before each meal. This soon had the desired effect of controlling the attacks. Continuing the same dose every three hours, the vomiting and nausea ceased entirely in four or five days.

She made a complete recovery in the second month of her pregnancy, in three weeks from the time she commenced the use of of ingluvin.

Ingluvin has certainly proved very efficacious in my hands, and I would therefore cordially recommend it to the medical profession as worthy of a trial. I consider it an invaluable remedy in obstinate cases of vomiting in pregnancy.

I might also add that I have used ingluvin successfully in several cases of chronic dyspepsia, in which pepsin had failed.—(*Dr. Frowert, Medical Record.*)

WHEN NOT TO GIVE IRON.

In the current number of the *Practitioner* Dr. Milner Fothergill has contributed a few very practical remarks on the contra-indications for giving this drug. As long, he says, as there is rapidity of pulse combined with rise of temperature, so long must iron be withheld in the treatment of acute disease. As long, moreover, as the tongue is thickly coated, or red and irritable, it is as well to withhold chalybeates altogether. This is particularly true of phthisis; no matter what the other indications are, it is useless, and sometimes worse than useless, to give it unless the tongue be clean without irritability.

It may be laid down as a general rule that this toleration of iron diminishes as the age increases Young children take iron well, and it is often well borne by them in conditions which in the adult distinctly forbid its use.

There is one condition where iron is absolutely forbidden, and that is the condition known as biliousness. As long as there is a foul tongue, a bad taste in the mouth, and fullness of the liver with disturbances of the alimentary canal, iron is not only of no service, but positively does harm. Sir Joseph Fayrer's Indian experience is in full accord with this expression of opinion. In speaking of the treatment of hepatic congestion, accompanied by anæmia, he lays stress upon the resort to purgatives and vegetable tonics and the avoidance of iron, until the biliary congestion is removed. "When the portal circulation is relieved some preparation of iron may be useful."

When given in large doses iron always blackens the stools, but if given in moderate doses and well assimilated this blackening is not so marked. The colour of the stools, then, may be utilised as an indicator as to how far chalybeates are assimilated and are likely to be useful.

There are two different states found in women where iron is either totally contra-indicated or to be given with great caution. The first is a condition of amenorrhœa in florid, plethoric persons. The other is the opposite condition of menorrhagia in certain females. There are cases of menorrhagia associated with pallor and debility, where the usual compound of iron and extract of ergot is not so useful as a non-chalybeate treatment. In these cases it is not any imperfection in the process of blood manufacture which is to be remedied, for the blood

is made rapidly and quickly, only to be lost at each menstrual period. It is here desirable rather to limit the rapidity of the blood formation, so that when the severe vascular turgescence of the menstrual period comes, it will not find the blood-vessels too distended with blood. This will lead to diminished catamenial loss, and so the blood waste will be economised. According to the experience of Dr. Brown Séquard and Dr. Hughlings Jackson, iron does not suit epileptics. It increases the tendency to fits. It may improve the general condition, but it aggravates the epilepsy.—*Med. Press and Circular.*

The Destruction and Expulsion of Uterine Fibroids by Ergot.—Dr. William H. Byford, who contributed to Vol. 1. Gynæcological Trans., a report of three cases of uterine fibroid in which the administration of ergot resulted in their piecemeal expulsion, reports in the *archives of Clinical Surgery*, an additional case showing the great value of this agent. The patient was aged forty-seven, and had for three years been the subject of severe hemorrhage, lencorrhea, pain in the uterus and general prostration. Examination revealed a large fibrous tumor of the uterus which extended to within two inches of the umbilicus, filling up the hypogastric region and extending to the ilium on the left side. The uterine cavity admitted the sound fully two inches. Dr. B. at once prescribed thirty drops of Squibbs fl. ext. of ergot three times daily, this dose gradually to be increased to one drachm. At first it had no perceptible effect; in a few days, however, the pain became so great that the medicine had to be omitted for several days at a time. It was resumed in smaller doses until the pain returned too severely, when it was again temporarily discontinued. She continued the medicine in this way until January 13th, 1877, when the tumor began to break up and be discharged. In a letter to Dr. B., the patient describes the appearance of the material discharged as "like sausage meat from a stuffer," four inches of which would be extruded and cut off daily by the patient. Its discharge was accompanied by sharp spasms of lancinating pains and an intolerable stench. On the 26th of January, the last portion was discharged, after which the patient soon regained perfect health. In commenting upon this case, the author remarked that "in the intramural tumor where the neoplasm is so situated that the greater portion of the muscular fibres surrounding it lies outside, the persistent use of ergot if it causes contraction will be very likely to cause its expulsion." The constant pressure on the fibres which lie on the inside, impairs their nutrition and soon results in rupture. With proper care in the examination of cases—with a view to determining the site of the tumour—the cases in which ergot will result in their expulsion, can be predicted with a reasonable degree of assurance.—*Med. & Sur. Journal, Toledo.*

Multilocular Ovarian Cyst complicated by Pregnancy.—Erskine Mason (N. Y. Pathological Society,) presented the uterus of a patient upon whom ovariotomy had been performed. The interest of the case rested on the fact that there was a fœtus in the uterus, as well as a large ovarian cyst filling the cavity of the abdomen. A number of similar cases had been recorded, including nine by Spencer Wells.

The patient was thirty years of age, single, and entered Roosevelt Hospital July 30, 1877. Eighteen months previously the abdomen began to increase in size, beginning on the left side. This enlargement was at first slow, but during the past two months the increase was so rapid as to cause marked dyspnœa. A vaginal examination showed the uterus to be high up in the pelvis, and movable. The abdomen had distinct fluctuation, with an area of flatness not changed by the position of the patient. The measurements were: From the anterior spinous process of the one side to that of the other, nineteen and a half inches. From the ensiform cartilage to either spinous process, ten inches. Circumference of the abdomen at the umbilicus, thirty-nine inches. Circumference of the abdomen at the spinous processes, thirty-eight and a half inches.

The patient was examined by one of the most expert ovariotomists in the city, and was considered as a favorable case for operation. Ovariotomy was accordingly performed, and, on opening the abdomen, the trocar was passed into one cyst, and eight ounces of fluid evacuated. This, unfortunately, proved to be a pregnant uterus, and as soon as the mistake was discovered the uterus was closed with sutures and the abdominal walls brought together. The patient passed a restless night, and gave birth to a fœtus at the sixth month. Death occurred eighteen and a half hours after the operation. The autopsy revealed a large multilocular cyst of the left ovary. There was no blood in the cavity of the abdomen. The uterus was closely contracted. There were no evidences of peritonitis.

Dr. Sayre said that too much credit could not be given to Dr. Mason for the frank manner in which he described the unfortunate issue of the operation, and he was of the opinion that, if other surgeons were equally honest in reporting cases, many more would be on record for the benefit of the profession.

Dr. Janeway referred to nine cases which Spencer Wells reported, in which pregnancy was found at the time of operation.—*N. Y. Med. Journal.*

A Cause of Infant Mortality.—We lately recorded a case where we belived the death of an infant had resulted from careless and injudicious feeding. Some correspondence having followed in

the Journal in connection with the subject of feeding infants, we subjoin a few remarks on the general diet suitable for infants. If an infant under seven months be deprived of its mother's milk, hand-feeding of some kind must be resorted to, unless the services of a wet-nurse can be obtained. The most convenient method of administering food in such a case is by means of a feeding-bottle. The character and mode of preparation of the food have now to be considered. Up to the age of six months little or nothing should be given besides milk, fresh, warmed, sweetened, and diluted with one-third or fourth part of water or lime-water, the latter being preferable when there is any tendency to offensive and loose motions or vomiting; three or four ounces of the food being given every three or four hours or less, according to circumstances. But in all cases the time of feeding should be fixed and rigidly adhered to. In some cases baked flour, rusks, etc., may be given with advantage under six months: but with most children such a diet is but ill borne, causing gastro-intestinal irritation, as evidenced by vomiting, with loose and offensive motions. After the age of six months, and toward the time when teething may be expected to commence, other food may be added to the diet, such as one tablespoonful of baked flour, either home-prepared or in the form of Ridge's food. The heating renders the farinaceous food partially soluble. Fatty food may be given with advantage once a day, in the form of yolk of egg beaten up with milk, or mutton-suet melted in milk by gentle simmering, two ounces of suet being used to thicken one pint of milk. The mixture, being sweetened and strained, can be taken through a feeding-bottle. Important as is the subject of infants' diet, we must not dwell longer on the subject, but refer our inquirers to the suggestions given in Dr. West's work on the Diseases of Infancy, and in Dr. Eustace Smith's Clinical Studies of Diseases in Children, and in works by other authors. Referring once more to the case on which we commented, it appears that death resulted from injudicious feeding, the child being as truly starved to death as if all food had been withheld. We are at the same time well aware that some children, naturally of a strong digestion, may live and thrive on almost any food.—*Brit. Med. Jour.*

Opium for the Photophobia of Scrofulous Children.—Dr. F. Betz (*Memoribilien*, 7 Heft, 1877,) states that the application of opiates in this affection is practicable, and that the greater ease and exactitude of carrying it out would soon cause it to supersede the atropine treatment. It being impossible for us to always keep these cases directly under our charge, the following plan seemed to him the best to be adopted. He begins by ordering 5-6 drops of the tincture of opium to children, two or three years of age, just before retiring; older children receiving corresponding doses. Besides this, a compress dipped in cold water, and folded 6-8 times, is so bound to the face as to cover the forehead and upper part of the face, extending at the same time well over both eyes. In very severe cases the compress may be dipped into ice-water. At any rate, the opiate is the principal feature, and the dose of this is gradually increased until quiet sleep is secured. Photophobic children are generally restless during their sleep, turning and crying out every few minutes. The opiate controls this symptom. The first local sign of improvement is that the children open their eyes earlier in the morning. The action of the opiate is often so prompt that a remarkable improvement is observed after a single administration, and now and then a complete disappearance of the photophobia after a few days' treatment. Other local applications often require treatment for a longer time. The great change in the disposition of the heretofore peevish and irritable child shows how much the pain produced by too bright a light affects the entire sensitive nervous system. To guard against relapses, Betz continues the evening dose of opium for a considerable period, and expresses the opinion that the general nutrition is improved thereby.—*Allgemeine Wiener Med. Zeitung.—Clinic.*

Dyspareunia—Vaginismus.—Clinic by Prof. Thomas.—I present to you a case which, when you enter practice, will be of service in aiding you to treat a condition which cannot be considered as rare. A point of interest to the physician, as well as the patient, is that, with proper treatment, a complete cure may be effected; and unfortunately a similar prediction cannot be made in many gynecological cases. Out of regard to the feelings of the patient, I shall run over the history. She says that since her marriage any attempt at coition caused very severe pain, and moreover, any proposition to that effect gave rise to severe trepidation. When she was placed on the table, and the labia drawn, the hymen was found to be complete. The finger was then placed upon it, when the patient suffered severe pain, similar, as she says, to what was felt during the efforts at intercourse. There was noticed, also, a caruncle near the urethra. Dr. Burns, the Scotch obstetrician, long ago recognized the disease, and since that time may have contributed to the literature of the subject. It was, however, to Dr. Marion Sims that we are indebted for the first thorough description, with method of treatment. He called it vaginismus. It seems that there is a hyperæsthesia around the vulva, and the slightest pressure gives rise to severe pain. The operation is quite simple, and, as I remarked, offers an exceedingly satisfactory result. After the patient is anæsthetized, she is placed upon her

back, with the thighs separated as widely as possible. The assistants then draw apart the labia and expose the hymen. This is grasped by a forceps, and the whole of it removed by means of the scissors. Any hemorrhage is readily controlled by pressure or ligature.

The opening of the vulva is then further enlarged by several incisions carried downward and outward. The incisions in this manner radiate through the perineum. After all hemorrhage has ceased, the glass plug is inserted and retained in position by means of a strip of adhesive plaster, which passes from the sacrum across the vulva to the abdomen, anteriorly. This plug should be kept continually in position for the first fortnight, and after that time, it may be found that by introducing it at night the necessary dilatation will be kept up. After six weeks it may be dispensed with entirely, and it will then be found that the patient is cured. I remarked, when speaking of the examination of the patient, that a caruncle existed near the meatus urinarius. It can be removed, without difficulty, by the scissors.—*Medical and Surgical Reporter.*

DIET AND MEDICATION IN SACCHARINE DIABETES.—The best diet for a diabetic patient is, for breakfast, eggs, and any kind of meat except oysters, gluten bread, and tea or coffee with milk and without sugar; for dinner, tomatoes, lettuce, onions, spinach, string beans, meat, light sour wine, and lemons, or perhaps oranges, but none of the sweet fruits; supper, about the same as breakfast. None of the starchy foods, no alcohol, and no sugar should be allowed.

Among drugs, opium is themost valuable. Of this an immense amount can be taken daily without any of the symptoms of poisoning. I am giving a boy now under treatment for this disease seven grains of opium per diem. In this case the only bad effect has been the production of obstinate constipation. I have known of cases where even this was unnoticed. The opium directly, by diminishing all the secretions, or more probably by its action on the nerve centres, relieves the excessive thirst and voracious appetite, and reduces the amount of urine and of sugar in the urine. In the present case the daily amount of urine has been reduced from twenty eight to eleven pints, and the total amount of sugar has been reduced proportionately. Ergot, which acts in simple diuresis almost like a specific, may be used in saccharine diabetes with much profit in doses of one drachm of the fluid extract four times a day. Where the skin is dry and rough, as in the present instance, jaborandi is of value by reason of its great powers of diaphoresis. If jaborandi be used the ergot and opium must be stopped for the time being.—Dr. Pepper, *Clinic.*

CROUP TREATED BY SWABBING OUT THE LARYNX.—Dr. Durodié, of Bordeaux, recently had under treatment a case of croup in a child seven years of age, in which tracheotomy became indicated. The parents, however, refused to sanction the operation, and the doctor, as a last resort, determined to swab out the larynx according to the plan first recommendod by Dr. Green, of New York. The child was securely held, and the left index-finger of the operator was introduced into its pharynx as far as the opening of the larynx; a small sponge, which was firmly secured at the end of a piece of curved whalebone, was then dipped into warm water, and, guided by the finger, was pushed into the larynx, where it was rapidly moved up and down three or four times before being withdrawn. This manœuvre was repeated three times at each visit, and each time the sponge, when withdrawn, was covered with the debris of false membranes. This treatment was continued four days, when all danger of asphyxia disappeared. When the treatment was begun, the patient was in the last extremity, and the improvement was manifest at once. Dr. Durodié thinks that the success was due in part to the reflex spasmodic movements provoked by the contact of the sponge with the laryngeal mucosa, these movements causing the ejection of the portions of the false membrane left by the sponge.—*Gazette des Hopitaux*, June 19.—*Medical Record.*

EPITHELIOMA OF THE CERVIX UTERI.—(*Demilt Dispensary*).—Mrs. S., native of Ireland, forty-four years old; married twenty years; several children; last living child, November 14, 1872. In June, 1873, miscarried at six months; cause unknown. December, 1874, had a second miscarriage, at third month; cause unknown. Since this time, for more than two years, patient's health has been failing. Menstrual flow profuse. Often between periods would lose blood for a couple of days at a time. Sometimes slight watery discharge from vagina; severe backache. Sexual intercourse painful, and followed by a discharge of blood from the parts. Has lost twenty-five pounds in weight during this time; has a poor appetite. and for the past three months has been in destitute circumstances, and consequently unable to obtain sufficient suitable nourishment.

Patient evidently much emaciated, with that peculiar anxious, cachectic expression which indicates a painful constitutional disease.

Physical Examination.—A dark, grumous, fetid fluid is found exuding from the vagina. Cervix uteri in normal position, but ragged and uneven around external os. Finger could be crowded up cervical canal for one-half inch. Tissue slightly gritty to the feel, and easily broken down, bleeding freely. The sound passed easily through the internal os after entering the canal above the diseased portion for three and a half inches. Placing

patient in knee-chest position, with Sims's speculum it was found that the cervix around external os and lower portion of cervical canal was diseased. The fungous growth was red and granular. The surrounding cervix was smooth, swollen and slightly indurated.

Diagnosis.—Epithelioma of the cervix commencing at external os. Diagnosis confirmed, at a later date, by Dr. E. R. Peaslee.

Treatment.—Patient placed in knee-elbow position. Applied strong solution of perchloride of iron and muriatic acid (℞. Liq. ferri perchl. ʒij; acid muriat. ʒj, M.), by means of a glass rod, to the affected parts. Five minutes afterward the whole of the diseased tissue was scraped away with a Sims's curette, and a fresh application made of the same medicament, to the slightly infiltrated base. Opium was given *pro re nata*; compound tincture of cinchona and the muriated tincture of iron were ordered, and arrangements made for improved diet, including an abundance of milk. Ordered injection of warm water with alum and carbolic acid once a day.

February 5th.—Has suffered great pain. To continue same remedies. No application made today.

9th.—Quite comfortable; much less pain; no hæmorrhage for several days. Iron and acid again applied to diseased surface; and all fungous growth removed with curette, as before.

March 10th.—Disease has made no progress since last treatment; size of cervix much diminished; ulcerated surface diminished one-half. Again applied iron and acid. Continued tonics; opium *pro re natu.*

April 10th—General improvement of patient and disease. Iron and acid has been applied every two weeks. Has had no hæmmorhage excepting at menstrual epoch, when it is still profuse.

June 8th.—Patient in better condition. Some erosion still existing about external os. No pain in or about pelvic organs. Same treatment to be continued.—*N. Y. Medical Journal.*

Removal of a Large Fibroid Uterus with Both Ovaries.—Mr. Krowsley Thornton relates a case in which recovery took place after removal by gastrotomy of a large fibroid uterus with outgrowths, and both ovaries. The patient was 38 years old, married, but had never been pregnant. The tumor had been first noticed nearly three years before. The operation was performed on January 10th. In opening the peritoneum a coil of intestine was wounded by the point of the knife, but the wound was at once closed by a continuous suture of fine silk. The pelvic portion of the tumor could not be dislodged, until the mass of the tumor was drawn out of the incision and used as a lever, by being pressed over the left iliac crest. This mass was then transfixed and ligated with two strong strings, and it was then cut off. Room was thus gained to get at the broad ligaments, which were transfixed and tied with double ligatures. The ovaries were then cut away. Finally the cervix was transfixed and tied, and the mass above it cut away. All the ligatures were cut short, and the abdomen was closed. The operation occupied rather more than an hour and a half. The ice-water cap was used on two occasions in the after-treatment, the temperature having risen to about 101°. On the ninth day some red, offensive serum came away per vaginam, and this discharge continued till the eighteenth day. It then ceased, and at the same time pain was complained of in the right iliac region, and the pulse rose to 124. On examination by speculum a small slough was found plugging up the external os, and on pulling it away a quantity of fetid pus escaped. Convalescence then progressed favourably, and on the thirty-seventh day the patient was able to go out.

Mr. Thornton believes that this is the first successful case of removal of the uterus and ovaries, in which all the pedicles were tied with silk and left free in the peritoneum. He prefers this to the extra-peritoneal method, thinking that it is attended by less danger of septicæmia or of hemorrhage, experience having shown that danger of hemorrhage when the clamp or wire separates is by no means small.—*Obstetrical Journal*, June, 1877.—*Med. Record.*

Removal of Lymphatic Glands from a Child. Dr. A. C. Post (N. Y. Path. Society), presented a mass of lymphatic glands, weighing about two pounds, which he removed from a child four years of age. The first evidences of enlargement were noticed about a year previous, and at first they increased slowly; latterly, however, they grew very rapidly, and began to impede the respiration. At the time of operation the mass extended from the lower jaw to the clavicle, and inward toward the median line. The operation was tedious, extending over a period of two hours, during which time the patient was under the influence of ether. A suggestion of the late Dr. Alexander H. Stevens was found to be of marked benefit in avoiding hæmorrhage. It was to cut directly down on the mass, and then enucleate as far as possible, using the knife merely to cut bands of connective tissue. In this way, although the enlarged glands skirted along the dilated vessels, no dangerous hæmorrhage followed. It was feared that the prolonged anæsthesia might possibly prove fatal, and the mother of the child was forewarned. Fortunately, however, both the pulse and respiration continued good. On the morning following the operation the child was able to sit up in bed.

In answer to a question, Dr. Post said the suggestion of Dr. Stevens applied only to benign tumors.

In malignant tumors it was an important principle to err on the safe side, and remove as much of the surrounding tissues as possible, so as to lessen the chances of recurrence.—*N. Y. Med. Journal.*

Medical Items and News.

GROUND mustard rubbed on the hands will remove the odor of valerian, musk, cod-liver oil, carbolic acid, etc.

DR. MATTHEWS DUNCAN.—It is now, we understand, definitely settled that Dr. Matthews Duncan will leave Edinburgh and settle in London, having been elected to the office of Obstetric Physician at St. Bartholomew's Hospital, on the resignation of Dr. Greenhalgh. There is in all circles in Edinburgh a general feeling of regret at losing one who has so long held a leading position in the medical profession there, and whose advice on matters of public business was much sought and highly valued, as being that of a clear-headed, thoroughgoing, and independent man. By the Medical School the loss will be particularly felt, as he is recognised on all hands as being one of the most able and successful of teachers. It is the intention, we are informed, of his medical brethren and others to entertain Dr. Duncan at a banquet before he leaves. His resignation will throw open the offices of the Physician for Diseases of Women at the Royal Infirmary, and that of Ordinary Physician to the Royal Maternity Hospital, for each of which appointments more than one candidate is already in the field.—*Brit. Med. Journal.*

ON EMPYEMA.—In the last volume of Guy's *Hospital Reports*, Dr. Goodhart discusses the question of operative procedure for empyema. Although recognizing that there are a few cases which may be safely let alone, he gives in his adhesion to operation by a single free opening, with antiseptic measures, and with a large drainage-tube, as being the most effectual means of cure. He insists upon the necessity of making the opening as low as possible, fixing the point at the ninth intercostal space, opposite to the angle of the rib, the seventh space in the axilla, or the eighth between the axilla and the rib-angle. Further back there is risk of wounding the lung compressed against the spine, and below these points the peritoneal cavity may be entered. A large number of cases are given, with full details.—*Medical and Surgical Reporter.*

OPERATIONS FOR PHIMOSIS DURING THE PRESENCE OF A CHANCRE.—Dr. Eustach Antoniewicz (*Wiener Med. Presse*) cites the views of a large number of authorities who advise against an operation for phimosis (otherwise indicated) during the continuance of a specific ulcer; most of them fear the extension of the ulcer to the wound made by the operation. The author then details five cases in which he made the operation, and in which the wounds thus made rapidly closed, and were followed by no extension of the chancre. He claims that the cure was accelerated. The average time before closure of the wounds in these cases was thirteen days, while in a number of others, not so treated, the ulcer lasted twenty-four days. He recommends the plan, therefore, because it hastens the cure, and the wound is not attacked by the ulcerative process.—*Schmidt's Jahrbücher*, No. 7, 1877.—(*Clinic*)

NEW METHOD OF TRACHEOTOMY SPECIALLY APPLICABLE IN YOUNG CHILDREN.—Dr. J. J. Reid, of New York, advises the following method of operating:—After the usual incision of the skin, and the division of the strong superficial fascia which connects the sterno-hyoid muscles, the knife is laid aside, and the next part of the operation performed by two uterine tenacula. With these the deep layers of fascia are torn, and the thyroid veins are pulled aside until the trachea is sufficiently exposed. The tenacula are then inserted into the sides of the trachea, and slight traction is made, while the tube is laid open to the desired extent with a bistoury. The wound in the trachea is thus made to gape widely, and any piece of membrane can be removed and the tracheotomy tube easily introduced. The advantages claimed for this method of operating are that it reduces to a minimum the risk of hæmorrhage, serves to fix the trachea without the danger of compression of the trachea and larynx, and facilitates the introduction of the tube.—*The Doctor.*

CÆSAREAN SECTION AFTER DEATH—DELIVERY OF A LIVING CHILD.—Dr. Buckell, of Winchester, reported to the Obstetrical Society (Medical Times and Gazette) the notes of, and showed the viscera of a case in which Cæsarean section was performed twenty to thirty minutes after death. The child was saved. The mother died suddenly of dilatation of the aorta, rendering the aortic valves incompetent. At the post-mortem examination the viscerae of the chest and abdomen were found to be transposed. The president thought the case of interest, as showing that a child could be recovered a considerable time after the death of the mother. Dr. Aveling said that it is believed that a child may be born alive an hour after the mother's death. Dr. Playfair said he knew of one case in which a live child was born half an hour after the death of the mother. Dr. Routh said that much depended on the cause of the mother's death. He had performed Cæsarean section in a case from apoplexy, but the child was dead from carbonized blood. Dr. Daly saw Cæsarean section done twenty minutes after rupture of the uterus, but the child was dead.—*Amer. Jour. Med. Sciences.*

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science

Issued Promptly on the First of each Month.

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.*

AGENTS.—DAWSON BROS., Montreal; J. & A. McMILLAN, St. John, N.B.; J. M. BALDWIN, 805 Broadway, New York, and BALLIERE, TINDALL & COX, 20 King William street, Strand, London, England.

TORONTO, DEC. 1, 1877.

THE PENGE CASE.

This case which has lately been a subject of such great interest to the Medical Profession in England, and which has just been terminated by the Home Secretary granting a free pardon to one of the convicts, and commuting the sentence of the others to imprisonment for life, has, we think several important lessons for us in Canada which should not be overlooked. The decision arrived at by Mr. Cross implies no doubt of the guilty intention of the prisoners, but is a result of a memorial signed by seven hundred and thirty-three medical men expressing their opinion that the post mortem appearances of the body of Harriet Staunton were not such as to justify the conclusion that death was caused by "starvation, or any other form of murder."

We do not propose to go into the case itself, with which our readers are no doubt familiar, but to call attention to those points which affect us as medical witnesses in a Court of Justice, and as pathologists. The first point that concerns us, is the increased difficulty there will be hereafter in proving death by starvation. This case, remarkable for the utter failure of the medical evidence to prove what was required from it, will be a standard one to the counsel for the defence in all future charges of a similar character. The medical witness in such a case in future, will not have to rest satisfied with proving that the results of insufficient supply of nutriment to the body were present; he will also be required to be in a position to affirm that these results were not consequent on inability on the part of the deceased to assimilate food, if it had been supplied. In other words, he will be required to prove that both the will to take food, and the power to digest it were present, and the absence of any disease that would neutralize the benefit of food taken and digested, before he can say that the patient died from being deprived of it. And in giving such evidence, he must be uninfluenced by anything beyond what can be deduced from a careful and thorough examination of the patient during life and after death. We are all conscious of how ready we are to be influenced by the surroundings of a case in forming an opinion; of how ready we are to jump to a conclusion as soon as we have observed one fact on which to found it, and to cease looking further. This tendency has been painfully exhibited in the unfortunate case to which we refer, and we also see how easily it may lead to a failure of justice.

The second point about which we wish to say a few words, is regarding the care required in making post mortems, and the competency of those making them. One unfortunate result of the limited opportunities for anatomical research in this country is, that it is almost impossible for the student to become sufficiently familiar with the appearances of diseased tissues to be able to recognize them as he ought. After entering into practice, his opportunities in the majority of cases of seeing or making post mortems, are practically nil; and a great part of what he had learned, is forgotten, when perhaps some case occurs suddenly requiring large anatomical and pathological experience to enable him to give a correct opinion, the lack of which may lead to the escape of the guilty or the conviction of the innocent. This deficiency is felt in England where the opportunities for pathological research are far in advance of those here. The evil consequently exists to a still greater extent among ourselves, and leads to a great deal of that difference of opinion wkich is the reproach of the medical profession.

Want of care in making the post mortem sometimes occurs, and though it is to be hoped this is rare, yet cases within our own knowledge have shown that it does take place. One instance of this happened not many years ago, in a case in which a man was tried and convicted of poisoning his wife. The medical man who made the post mortem neglected to tie the stomach before removing it, and so allowed the contents to escape into the abdominal cavity from which he removed them by scooping up what he could with his hands. The jar containing the viscera also remained unsealed for several days before it reached the

analyst's hands. Such omission might easily render the evidence of both medical man and analyst worthless, and would not have occurred had the operator been more *au fait* at his work.

The failure of the medical evidence in the Penge Case has led to a renewed feeling amongst the profession in England that the most effectual remedy for such occurrences in the future wouldbe the appointment of men noted for their experience and ability in observing post mortem appearances, whose duty it should be to conduct post mortems in criminal cases; men whose familiarity with the subject would render them less liable to err in interpreting what they saw, or to overlook any condition that might have in any way influenced the death of the person. In England, it is probable that persons so appointed would have their time so fully occupied that they would be able to devote their whole attention to the work. In Canada it would not be so, and the difficulty of finding suitable men for such a position would be great, as there are so few here who are able to dispense with practice and cultivate a specialty of this kind. We believe, however, that a great improvement on the present mode of conducting post mortems in cases the subject of legal inquiry, might be made if the Government were to bring in an Act empowering the Minister of Justice to appoint certain men in the larger cities, who might be called by the coroner to aid the local medical man in conducting the post mortem in all cases of death under suspicious circumstances; such men to be entitled to receive fees and travelling expenses at a fixed rate in all cases in which they might be called on to act. It would not be difficult to find men in Toronto or Montreal connected with the Hospitals whose opportunities there, are sufficiently great to render their opinion of weight, and the experience they would gain would go far in time to remove the doubt and uncertainty so frequently attendant on medical evidence in criminal cases. The experiment would, we think, at any rate be worth trying, and in the long run would not probably increase the cost of the administration of justice, while it would probably improve its efficiency.

VIBURNUM PRUNIFOLIUM.—Fluid extract of viburnum prunifolium is being used with gratifying success in cases of threatened abortion, uterine debility, irritability and hemorrhagia, by the profession in the United States and Canada.

ENQUIRY INTO RECENT DOUBTS OF THE VALUE OF VACCINATION.

It has been considered by a few physicians in recent years that vaccination is not only useless but an evil; that Jenner's theory has no foundation in physiology, nor any philosophical basis; and that there is no instance in which the inoculation of one disease prevents another. They also state that the general mortality has not been diminished by vaccination; that the argument that vaccination has diminished small pox, is merely *post hoc ergo propter hoc*, and overlooks other concurrent circumstances; that small pox is not the horrible and dangerous disease it once was, its treatment being much better understood:—also that if it does stand as a preventive of small-pox, the chances are millions to one, that it imports other and more powerful disorders into the system. That as cow pox is generated in dirty byres, and horse grease in dirty stables; so small pox prevails among the dirty, low, ill fed, unwashed population. That as the plague, jail-fever, leprosy, elephantiasis, sweating sickness, and black death have passed away with advancing civilization, so has the cow pox of Jenner. Further, that cleanliness is the great prophylactic against epidemics, small pox included. Civilization has banished many epidemic diseases, and ought to have got rid of small pox. It is also stated that the excessive mortality of recent epidemics is to be attributed to confinement in small pox hospitals which necessarily occasions a great increase of mortality by the congregation of a number of cases in a limited area—and that cow pox weakens the power of vitality and imparts or calls into action diseases which would otherwise remain dormant, as syphilis, scrofula, skin diseases, etc.

To meet these numerous objections we cannot do better than furnish our readers with a *prâcis* or digest of the evidence taken before a committee of the English House of Commons (see Blue Book). Mr. Simon, F.R.S. has formed his opinions on vaccination as a preventive of small pox, not on experience as a practical medical man, but as a medical statistician by considering masses of national evidence, and as a reader of medical history. He considers small pox in the absence of vaccination the most fatal pestilence.

It is not a declining disease; small pox contagion being always present, an unprotected

person generally cannot get far into life without catching it. Against fatality or severity, where vaccination has been thoroughly good, it is almost absolute. There is not a shadow of pretext for asserting that the protective value of vaccination has decreased. It is the only protection against small pox, except isolation. Mr. Simon denies the accuracy of the assertion that the death rate is low when small pox is present, and high when it is absent. According to tables by Dr. Greenhow and Dr. Farr, in the middle of the last century when small pox largely prevailed, the general death rate was double what it is at present; and Dr. Guy shows that the small pox mortality from 1840 to 1854 was less than a tenth of what it had been. During the twenty years, 1660-79, when small pox reached 4170, the general death-rate is estimated at 80,000 per million *i e* small pox contributed a twentieth of a total three times as high as the present death rate. Destructive small pox epidemics then occured, which have ceased where vacination is general. In Ireland during 1830-40 the annual small pox deaths were 5,800 (pop. 8 millions); 1840-50, 3827 (pop. 6½ millions); 1850-60, 1272 (pop. 5,800,000.) In 1863 vacination was made compulsory. In 1864 there were 854 deaths; 1865, 347; 1866, 187; 1867, 20; 1868, 19; and in 1869, 20 deaths.

Mr. Simon states that in the small pox hospital the mortality among unvaccinated patients is 35½ per cent.; among the vaccinated, proved by reference to scars on the arm, 7 per cent, and those done in the best manner a fraction of one per cent. In Holland the children are vaccinated very late, and thus it is that an epidemic of small pox has the power of attaining enormous dimensions. In India, where 98 per cent. of the natives above ten have small pox naturally or by inoculation, Dr. Harvey reports (1868-9) a death-rate in Agra, unprotected by vaccination, of 128 per 10,000. In Delhi less unprotected, 104. In Burtpoor, partially protected, 65; and in the British European army (protected) 3.59 per 10,000. He attributes the enormous difference entirely to want of vaccination. Mr. Simon thinks the different modes of life between the natives of India and the European troops would make no difference as regards the attacks from small pox, though it may possibly in the power of resistance; there is much greater likelihood the infection may spread where the people are huddled together, but barring that, is not aware that sanitary influences exert much control over small pox. There has been a great reduction of some diseases, but small pox left to itself is the same disease as it was two or three centuries ago. If there were increased infant mortality in any place he would expect to find that its sanitary condition had deteriorated, certainly not from vaccination.

He further states that there is not the least doubt that syphilis has on several occasions been communicated on the continent by what has purported to be vaccination. He mentions a case where vaccination was performed by a porter of the Paris Academy of Medicine, and what purported to be vaccine lymph was taken from a child covered with syphilitic skin disease, of which it died in a few days. A vaccinator should assume that lymph taken from a syphilitic subject would convey syphilis; but the negative evidence is very great as to syphilis not spreading by average vaccination. Sir B. Brodie had never seen a case where vaccination could be supposed to have imparted syphilis. It is absurd to suppose scarlet fever has been communicated by vaccine. An occasional death within seventy years has arisen from the contagion of erysipelas caught by the vaccinated arm, but never knew a case of pyemia induced by vaccination. Mr. Gibbs has entirely misapplied the experiments of Dr. Wilson Fox, who denies that vaccination, as such, has ever been known to produce tubercle; there is not the smallest reason to suppose that tubercular disease is communicated by vaccination. Mr. Simon believes that fears of vaccination are scarcely entertained, except where pains are taken to exaggerate occasional mischances. Vaccination is perfectly indifferent to life except as serving to cut off the one great danger—small pox. Ricord is of high eminence, but he certainly does not agree with him, that syphilis being found communicable by vaccination, the practise must cease. Experience shows that while vaccinations are annually done in millions, allegations that would bear examination, are of the utmost rarity in regard to syphilis being so communicated and the risk is quite infinitesimal.

The testimony of Dr. Bakewell, Vaccinator General of Trinidad, Sir D. Corrigan, Mr. Marson, thirty-five years surgeon to the Small Pox Hospital; Dr. Wood, Prest. R. C. P., Edinburgh; Sir

Wm. James, Dr. Gull, 25 years physician to Guys Hospital; Dr. West, physician of the Children's Hospital; Mr. Hutchinson, surgeon to the Lon-Ophthalmic and skin diseases hospitals; Dr. Seaton, Medical Inspector Privy Council, corroborates the views of Mr. Simon of the protection afforded by vaccination against small pox. Their evidence will also be found in the same book.

CONFERENCE WITH THE AMERICAN MEDICAL ASSOCIATION.

At the meeting of the Canada Medical Association held at Niagara Falls in 1874 it was resolved that, "in consideration of the true interests of Medical Science, it is desirable that a medical conference should take place between the American and Canada Medical Associations at some central point to be determined upon; and that the American Association be advised as to the desirability of thus becoming more intimately acquainted, and affording an opportunity for the discussion of medical and surgical questions on a common basis."

At the meeting of the American Medical Association in Louisville, in 1875, this idea was reciprocated, the subject was taken up, and it was resolved "that a committee of thirteen be appointed, whose duty it shall be to confer with a like committee of the Canada Medical Association at such time and place as may be agreed upon by the joint committee of the associations." The meeting of the joint committee took place in Philadelphia, in September, 1876, and it was unanimously resolved "that in the opinion of this conference the interests of medical science will be promoted by a consolidation of the Canadian and American Medical Associations in one body," and "that the president of each association respectively be requested to embody this idea in his annual address in order that the matter might be taken up and more fully discussed at the next annual meeting."

Dr. Bowditch, President of the American Medical Association, at the annual meeting in June last, took up the subject in his address and placed the arguments *pro* and *con.* before the association. In favor of the plan he mentioned the following reasons:—

First, We should associate ourselves with a body of physicians, all of whom have been educated under English influences, and many of whom have pursued their studies in England and have received diplomas from the schools of that country. We all know the high standard of qualifications required by the British schools.

Second, Why may we not look upon such a connection, as quite similar to that which has frequently taken place and which will occur hereafter, when a new State in this Union is formed?

In that case, if a State medical society be organized, it has a right to send delegates to this association. The only difference, in the two cases, would be that Canada embraces a very much larger constituency than any of our new States would have.

Third, I am inclined to look with favor upon the proposed union from the standpoint of civilization itself. There can be no doubt, as already stated, that this American Association has been a great means for promoting good-will between the different sections of the United States. The proposed Union with the Canada Association will tend much towards the reuniting of two of the freest nations on the globe, and certainly civilization can get only good from such co-operation. All means that we can bring to unite mankind I hail with delight.

Fourth, I will allude to what would give me, and I doubt not, many more, great pleasure. I wish the united professions to meet in the old cities of Montreal and Quebec, and pass up and down the noble St. Lawrence, magnificent as it is in the length, depth, and breath of its waters, and still more fascinating from its early associations with European civilization. I would like that we should all stand on the scarred battlements of Quebec, and I think, perhaps, we, of this country, might learn a divine lesson of magnanimity after war, if we could together look at the obelisk, erected by the graceful action of the British Government, to the joint memories of Wolfe and Montcalm, two brave soldiers, antagonists in battle, but, in death, joint heirs in the memories of mankind."

The objections to the proposed amalgamation were chiefly: the unwieldiness of the united bodies, the American Medical Association being already much too large a body; the difficulty of arranging the expenses; the widely distant places of meeting; the two languages spoken throughout the country, &c., &c. The judicial committee to which the subject was referred by the president reported

against it and expressed the opinion that the present system of intercourse by delegates served to meet the requirements.

The subject of amalgamation was also dealt with by Dr. Hingston in his address before the Canada Medical Association in September last (see "Transactions"), in which he repudiated the idea of amalgamation on the part of the Canada Medical Association. He said:—"The Canada Medical Association did not ask for amalgamation, or to absorb or be absorbed by the American Medical Association; but merely for "a conference at some central point" so as to become "more intimately acquainted," and to discuss "medical and surgical questions on a common basis."

If our representatives at Philadelphia asked for more, they were not so commissioned; and in resolving that "a union of the two associations into one is desirable," they expressed their own views, —advanced and liberal, no doubt,—but spoke not for the Canada Medical Association, which, at Niagara in 1874, asked merely for a "medical conference," for the "discussion of medical and surgical questions on a common basis" without either association losing, or wishing to lose, its identity.

He also said that "union for scientific purposes was alone possible," but that all matters pertaining to medical ethics or education could not possibly have been discussed or settled by two peoples so near each other in many things, so far asunder in others." We fully endorse the sentiments expressed by Dr. Hingston, and trust that the two associations may have a long career of usefulness before them, each in its own sphere, and that the closest friendship and mutual good-will may always exist between them. The system of sending delegates each to the other association cannot, at least for many years to come, be improved upon.

Bovine Virus, New Stock.—A case of spontaneous cow-pox has lately occurred among the herd of Mr. Leuey, of Longue Pointe, Quebec. Dr. Bessey, of Montreal, district physician, has been successful in securing and propagating this virus under the name of the "Leuey Stock." It is now being used by the Board of Health, Montreal. It has also been used by several medical gentlemen in Montreal with the most satisfactory results. Dr. Bessey now offers it to the profession with the fullest confidence in its purity and reliability.

Turkish Army Medical Service.—The Turkish Army Medical Service is said to be in a most deplorable condition. It is totally inadequate in numbers and quality, and the condition of the sick and wounded is most distressing. The supplies are scanty, and the unfortunate wounded are days without any relief, surgical assistance, or even food. After a battle near the Shipka pass in which 6,000 were wounded, there were only four surgeons to look after them. The English and foreign surgeons who have gone to the seat of war have not been very cordially received, and in some instances were forbidden to perform operations necessary to save the lives of the soldiers. The Turkish medical officers at Erzeroum refused to allow amputation to be performed, because "it was better the men should die than become a burden on the Sultan." Instead of the inhuman Turks being thankful of assistance, the English aid societies have actually to compel them to receive help for their sick and wounded.

No Excuse for any One being Out of Employment.—Our attention has been called to some new and useful household inventions recently patented by L. E. Brown & Co., of Cincinnati, Ohio, which make housekeeping a pleasure, instead of a dreaded necessity. They have been having a very large sale for them throughout the United States, and now wish to introduce them through the Dominion of Canada, and offer good reliable lady or gentlemen canvassers an opportunity seldom met with for making money rapidly. For terms and territory write at once to L. E. Brown & Co., 214 and 216 Elm Street, Cincinnati, Ohio.

Improper Registration.—Dr. F. D. Gilbert, of Sherbrooke, Que., has brought a charge against Dr. G. E. Fenwick, of Montreal, and Dr. E. D. Worthington, of Sherbrooke, of issuing a false certificate of registration to a physician, to enable them to secure the proxy of the latter at the election of the board at Three Rivers, Quebec. The case is now before the courts for investigation, and we refrain from any comments at present. We hope for the credit of the profession in Quebec that the whole matter may be satisfactorily explained.

Heroic Conduct Rewarded.—A pleasing incident at the meeting of the British Medical Association, was the presentation of medals to several

medical men, for their heroism in assisting in the rescue of miners in the colliery accident in April last at Point-y-Pridd. The doctors were unremitting in their attention, and by their presence cheered and encouraged the miners to persevere in their attempt at rescue. Drs. Dukes and David were the first, who, after communication had been established, crept through the narrow channel at the peril of their lives. Silver medals were awarded to each, and the gold medal to Dr. Davies, the colliery surgeon, who superintended the efforts of the men, remaining whole days and nights in the pit. Bronze medals were awarded to several others who rendered essential service.

THE JEFFERSON MEDICAL COLLEGE HOSPITAL.—The new hospital of the Jefferson Medical College has recently been opened for the reception of patients. It is built of brick with Ohio stone facings, five stories high, and consists of two wings in the shape of the letter L. Within the angle is a two-story amphitheatre capable of seating 600 students. The building is heated by steam, and fresh air is obtained by openings beneath the windows and behind the steam heating coils; also by ducts opening from the street into the basement, where it is heated and passes into the various parts of the building through flues and registers. The opportunity for clinical instruction here will be very good, and clinics will be held throughout the winter and summer sessions.

TRINITY MEDICAL SCHOOL.—ANNUAL DINNER. The annual dinner of the Faculty and Students of Trinity Medical School, was held in the Queen's Hotel on the 21st ultimo. The chair was occupied by Mr. Charles Sheard, and the vice-chairs by Messrs. W. H. Doupe and B. Spencer. Among those present as invited guests were Mr. Justice Morrison, Senator Campbell, Hon. William Macdougall, Hon. M. C. Cameron, His Worship the Mayor, Alderman Boswell, Rev. Dr. Topp, Mr. S. B. Harman, Mr. W. S. Lee, Mr. Thomas McCrosson, Mr. VanKoughnet, Drs. Workman, Clark, Pyne, O'Reilly, Barrick, Canniff, Moorehouse, More, Stuart, Teskey, W. W. Geikie, and others. The band of the Tenth Royals was stationed in the gallery, and during the evening rendered some fine selections in good style. Letters of regret were received from several invited guests who were unable to be present. After dinner the usual loyal and patriotic toasts were proposed and duly honored. The toast of the "Dominion and Local Legislatures," was responded to by Hon. William Macdougall and Hon. M. C. Cameron; the "Army, Navy, and Volunteers," by Drs. Hodder and Kennedy; the "Universities with which we are affiliated," by the Hon. Justice Morrison, for Toronto University; S. B. Harman, Esq., for Trinity University; and Mr. Henderson for the University of Halifax. The toasts of the "Dean and Faculty of Trinity Medical School," was responded to by Drs. Hodder, Bethune, Geikie, and Fulton—all of whom were loudly applauded. The secretary, Dr. Geikie, gave an account of the condition and prospects of the school, and stated that upwards of 130 students had registered themselves during the present session. Dr. Fulton after alluding to the success of the school, referred to the advantages afforded by the Toronto General Hospital, and paid a high compliment to the Board of Trustees for the high state of efficiency into which that institution had been brought, and to the resident Medical Officer, Dr. O'Reilly, for the care and attention which he brought to bear in the discharge of his duties. The toast of "The Canada Medical Association," was responded to by Dr. Workman, President elect, in a humorous speech. After toasts to the "Medical Council," "The Medical and other Learned Professions," "The Graduates and Class of the present Session, "The Ladies," and "The Press," all of which were interspersed with singing by the students, the company broke up after midnight, having enjoyed a very pleasant evening's entertainment.—[COM.

ANNUAL DINNER OF THE TORONTO SCHOOL OF MEDICINE.—The annual dinner of the Toronto School of Medicine was held at the Rossin House on the 9th ult. In addition to the faculty of the school and students the following gentlemen were present: Mayor Morrison, Drs. Workman, Clark, O'Rielly, Riddell, Fraser, Langstaff, Griffin, McPhedrain, Winstanley, Pyne, Bascom, Cameron, Schmidt, White, and Black. Upon the removal of the cloth, letters of apology were read from several invited guests, after which the usual loyal and patriotic toasts were proposed and responded to. Several humorous songs enlivened the proceedings between the speeches. The evening was spent very pleasantly by all present.

TRINITY COLLEGE CONVOCATION.—The annual convocation of the University of Trinity College was held on the 15th ult., in the new Convocation Hall. The following gentlemen received the degree of M.D.—W. W. Geikie, C. F. Patten, W. G. Stark.

Matriculants in Medicine.—E. Thurgeson, J. D.

Anderson, J. A. McNaughton, M. Brownlee, J. A. Hunter, J. M. Shaw, E. F. Halton, T. C. Spence, J. W. Steffins, J. A. McKinnon, J. D. Cooke, M. Martin, J. S. Beck, T. A. Kidd, E. C. Cooke, J. E. Shaw, R. Island, P. Kearn, W. W. Boyce, T. Sullivan, G. J. Walshe, W. A. Mearns, T. Hutchinson, E. Prouse, R. M. Eccles, W. Beatty, G. S. Armstrong, J. Ellis, R. Morrison, W. L. Witherspoon, A- Welford, B. Welford, J. W. Caughlin, E. Wilson, W. F. Chappel, D. B. Duck, A. C. Graham.

Opium Cure Hospital.—We take pleasure in calling the attention of the profession of Canada to the Parish Hall of Brooklyn, N.Y., a home for the cure of opium habitues. It is the only one of its kind in existence on this continent, and from the high character of the men who are at the head of the institution, it may be confidently recommended as a suitable place for this unfortunate class of patients. The Home is delightfully situated near Prospect Park, is handsomely furnished and provided with every necessary arrangement which experience has shown to be of value in the treatment of such cases.

New Medical Register.—It is the intention of the Ontario Medical Council to issue a new Medical Register early in 1878. It is to be hoped, therefore, that the registered medical practitioners of the Province will see that their names and addresses are properly entered, and that wherever any changes or additions are desired, they will communicate without delay with the Registrar, Dr. Pyne, Toronto.

Roger's Statuary.—The groups of statuary manufactured by Mr. Rogers 1155 Broadway New York, cannot be excelled for correctness and life like expression. "Playing doctor," "The charity patient," "School days," the "Travelling Magician," are among the very best, and as works of art, are beyond criticism. Either of the above would be very nice and suitable for a Christmas present. They only require to be seen to be appreciated.—Send for catalogue.

Treatment of Thrush—Apthæ.—This affection, which is very common in children, requires both local and constitutional treatment. It frequently arises from some derangement of the digestive organs. When the general condition is good it suffices to apply a wash to the inside of the mouth and gums, three or four times a day, and the following applied by means of a piece of soft lint tied on the end of a piece of whalebone, will be found very serviceable.

℞—Pot. Chlor.
Sod. Sulphitis.
Sod. Bibor, *aa.* ʒiss.
Glycerinae, ʒss.
Aquæ, *ad* ʒij.—M.

Appointments.—Prof. Thos. Annandale has been appointed to the chair of clinical surgery in the University of Edinburgh as the successor of Prof. Lister.

S. S. Murray, M. D., of North Dorchester, to be an associate coroner for the county of Middlesex.

Examiners in Trinity College.—The following gentlemen have been appointed examiners in medicine for Trinity University, viz: Drs. Kennedy, Robertson, Stuart, Teskey, Toronto; and Dr. D. B. Fraser of Stratford.

Books and Pamphlets.

The Pocket Case-Record and Prescription Blank Book with Visiting List, by R. Clarke & Co., Cincinnati.

This book furnishes a convenient method of keeping copies of prescriptions and notes of cases in private practice at the bedside. It contains spaces for the names of patients, date of visit, age, diagnosis, pulse, temperature, respirations, &c., and a visiting list which will accommodate the largest practice. Send thirty-five cents for a sample Messrs. Clarke & Co., also publish an Office Case Record and Prescription Blank Book, and a Physicians Case Record Ledger, which will be found exceedingly convenient and useful.

Physician's Visiting List, by Wm. and A. D. Elmer, New York; W. A. Townsend Publisher. The above mentioned list has been long before the profession, and the new edition will be welcomed by many who have formerly used it.

Walsh's Physician's Combined Call-Book and Tablet, third edition, price $1.50.

This is an exceedingly neat and comprehensive physician's visiting list. It is of the size and shape

of an ordinary wallet, and can be carried in the pocket without any inconvenience. It contains many useful tables, formulæ and doses of medicines and new remedies, directions for examining the urine, making post-mortems, etc. This visiting list is well got up, and cannot be too highly recommended. Dr. Walsh also publishes a HANDY LEDGER, a companion to the Call-book and Tablet, price $2.50. Both of the above may be had by addressing Dr. Walsh, 326 C. St., Washington.

PHYSICIAN'S VISITING LIST, by Wm. Oldright, A.M., M.D. Toronto: Wm. Warwick, price $1.25.

The advantages which are claimed for this work are, that being ruled for a month instead of a week, the names of patients are written but once in the month, and that on this account, it is also more convenient for posting.

NINETEENTH ANNUAL REPORT OF THE HOSPITA FOR INSANE, Nova Scotia, for 1876. Dr. J. R DeWolf, L. R. C. S. E., Medical Superintendent, D. A. Fraser, M.D., Assistant Physician.

It is evident from a careful perusal of the report before us, that this institution is doing a good work. On the first of January, 1876, there were 318 patients in the hospital.

TRANSACTIONS OF THE CANADA MEDICAL ASSOCIATION.

This work which has just been issued from the press forms an octavo volume of 240 pages, with seven full sized plates, and contains the proceedings, President's address, reports of committees, and eight Medical and six Surgical papers. The price is $1.25. Subscriptions and orders should be sent to Dr. Osler, 1351 St. Catherine Street, Montreal, Secretary Publication Committee.

THE PHYSICIAN'S SELF-COPYING PRESCRIPTION BOOK AND BLANKS; by W. A. Anderson, Lacrosse, Wisconsin. Chicago: Hadley Bros. & Co. Price 35cts. each.

The above is a blank prescription book, arranged with carbon paper which enables the practitioner to write his prescription in duplicate with an ordinary lead pencil, one copy of which is retained and the other sent to the druggist. There is also a space on the retained prescription for recording the pulse, temperature, respirations, &c. This pocket companion will be invaluable to those who are in the habit of keeping copies of their prescriptions, and every one should do so.

THE MEDICAL REGISTER AND DIRECTORY OF THE UNITED STATES; by S. W. Butler, M.D. Second edition, revised and corrected. Philadelphia: Med. and Surg. Reporter Office.

This is a very large and important work, containing as it does the names and addresses of all the physicians in the United States. All the inaccuracies and omissions of the first edition so far as known have been corrected. Besides the names of physicians, the work contains a fund of valuable information regarding medical institutions, hospitals, societies, health resorts, mineral springs &c., &c. It will be found a most convenient and useful work of reference at all times.

HOW TO USE THE OPHTHALMOSCOPE, by E. A. Browne, M. D., Liverpool: Philadelphia, H. C. Lea. Toronto: Willing & Williamson.

Births, Marriages, Deaths.

At Woodbridge, on the 25th Oct., the wife of Dr. Grant, of a son.

At Mount Pleasant, on the 30th October, the wife of Dr. Marquis of a son.

At Woodbridge, on the 19th ult., the wife of J. Wilkinson, M. D., of a daughter.

At Carleton Place, on the 15th ult., R. W. Bell, M. D., C. M., of Peterborough, to Nellie, yougest daughter of John Sumner, Esq., Ottawa.

At Millbrook, on the 14th ult., John Hunter, M. D., to Lizzie, eldest daughter of John Renwick, Orono.

In Toronto on the 14th ult., John A. Stevenson, Esq., M. D., of London, Ont., to Annie Isabel, eldest daughter of the Hon. Wm. Proudfoot, Vice-Chancellor of Ontario.

At Brockville, on the 14th ult., Archibald Malloch, M. D., of Hamilton, to Francis Mary, daughter of the late Dr. Reynolds.

In Ottawa, on the 9th ult., Dr. Germain of typhoid fever.

OBITUARY.—The death of Paul F. Eve, M. D., Nashville, Tenn., aged 71 years, the distinguished American surgeon is announced. Also Dr. Martyn Paine, New York, the distinguished medical savant, aged 82 years.

---

* *The charge for notice of Births, Marriages and Deaths, is fifty cents, which should be forwarded in postage stamps, with the communication.*

THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

VOL. X. TORONTO, JAN. 1ST, 1878. NO. 5

Original Communications.

ACETATE OF LEAD, IN LARGE DOSES, IN POST-PARTUM AND OTHER HÆMORRHAGES.*

BY J. WORKMAN, M.D., TORONTO.

It is now nearly fifty years since a discovery was made by my preceptor, the late Dr. John Stephenson, of Montreal, which was regarded by him, and, as I think, very justly, as a very important therapeutic fact. About the year 1830 Dr. Stephenson was consulted by a man who was troubled with a varicocele. With but meagre expectation of doing his patient any good, he gave him a dose of epsom salts as a purgative, and two drachms of the acetate of lead to be used as a lotion on the scrotum. He did not again see the man for some weeks. Meeting him one day on the street he enquired how he had got on. The man replied he was cured. Dr. Stephenson was rather sceptical as to this favourable issue, and questioned him as to the effects of the two drugs. He replied that he used the large powder as a lotion, and disolved and swallowed the other. It was very sweet, he said, but it purged him well. Dr. Stephenson afterwards examined the scrotum, and found that the varicocele had really disappeared. He was a man of sharp perception and rapid conclusion. He had twice nearly lost a lady from post-partum hæmorrhage, though using all the suppressive means then in favour. He resolved to try, in her next confinement, should hæmorrhage recur, the effect of a large dose of the acetate; but not to wait till it had set in. He gave it some time before the emptying of the uterus; and to his high satisfaction the organ contracted promptly, and no hæmorrhage took place. In every subsequent labour of this lady he took the same precaution, and it was followed by a like result. Throughout his obstetric practice, which was pretty large, he treated every severe case of post-partum hæmorrhage with the acetate, generally in drachm doses, repeated if deemed necessary. Not in any instance did the slightest evil follow.

Shortly after his first test of its anti-hæmorrhagic action, a servant man of the late Professor Holmes was seized with a formidable hæmoptysis. He was placed in the Montreal General Hospital. The hæmorrhage resisted all the remedies prescribed by the attending physician. A consultation of the Hospital Staff was called. Dr. Stephenson related his experience of the efficacy of the acetate, and proposed it in this emergency, but none of his colleagues would venture on his large doses, for they had all been taught, and as in duty bound they all believed, that it was an irritant poison. The patient, however, was bleeding to death, and they yielded, but at the same time told Dr. Stephenson he must take the entire responsibility on himself, which he most readily and fearlessly did. I do not remember the total quantity of the acetate which was given to this patient, but I know it was large, several drachms in the course of a few hours. The man's life was saved. Some years after I saw him in Dr. Stephenson's office. The Doctor sounded his chest, and showed us that one lung was sealed up.

Dr. Stephenson, in his midwifery lectures, strenuously inculcated the theory of the anti-hæmorrhagic action of the acetate, and its perfect harmlessness in large doses. I have been a faithful disciple, both in my general practice, and as a teacher of obstetrics, and I am aware that a number of my fellow students, and nearly all my pupils, have realized the same valuable results as Dr. Stephenson and myself. I could corroborate this statement by many witnesses, some of whom now hear me. I think I may safely appeal to one of my fellow students, whose testimony will command the warm respect of this entire Association, need I say that that I mean our venerable and most sincerely esteemed Secretary? Alas! he is, I believe, all that now remains to me, in this city, of my contemporaries; you will not, therefore, wonder that I both esteem and love him.

I never but once saw the slightest sign of the evil constitutional results of the acetate, and that one exception occurred in a case of hæmoptysis, in which my consuing friend would not consent to

*Read before the Canada Medical Association in Sept. last and published in the transactions.

exceed five grain doses, and these he insisted on guarding by one grain of opium with each dose. As the case was his, and I could not dissipate his fears, I did not feel called on to contend against his scruples. In due course the peculiar lead gum put in an appearance. The acetate of lead given in its pure state, in large doses, not only requires no opium as a protective against its action, but it is my conviction it is always unwise to aim at any such protection; and in this relation I would also inculcate the inadvisability of the addition of acetic acid. I pretend not to go into the chemical merits of the question, but it is my impression that this addition of acetic acid is more likely to favour undesirable chemical transformation than to prevent it. I am, however, quite sure that no such precaution is necessary. I always took care to use a pure sample, free from any portion of the carbonate; but even should some portion of the latter be present, as it is insoluble in water, it soon falls to the bottom of the solution, and then we are perfectly safe in giving the clear fluid.

I remember one case of very profuse lung hæmorrhage in which I administered within twelve hours six drachms. The man was saved, and he lived several years after, but finally died of pulmonary phthisis. I gave eight drachms in the course of sixty hours to an asylum patient. In neither of these cases did any lead symptoms, nor, indeed, any other unpleasant result follow. My asylum patient survived her hæmorrhage three years, and died of phthisis also.

I was rather surprised, if not a trifle mortified to find that, in a total of perhaps one hundred and forty students of the two Toronto medical schools examined by me on obstetrics last April, only one gave, amongst the multifarious suppressors of post partum hæmorrhage, the exhibition of large doses of the acetate of lead, whilst dozens named it in paltry doses, guarded by acetic acid or opium. At Kingston, however, where midwifery is taught by my old friend and pupil, Dr. Lavell, I found a very different state of matters, and I felt I was not yet utterly ignored.

Not long ago a very clever medical friend, when discussing with me the merits of the acetate in post-partum hæmorrhage, exultingly asserted that before it could come into action the woman would be dead. My reply was, "I am convinced you have never tried it in large doses;" and neither had he. So far from slowness of action being the fact, I have often been astonished at its quickness. More especially have I observed this when it has been speedily vomited. The uterus has appeared to me to shrink down into normal globular form, almost instantly. I do not believe we have, in all our materia medica, a more prompt, or potent promoter of uterine muscular contraction.

Why, in the name of Heaven, we should deluge a poor shivering woman with pailfuls of iced water, or inject into the uterus snch irritants as the tincture of chloride of iron, when we have at command so harmless and efficient a suppressor of hæmorrhage as the acetate of lead, is quite beyond my comprehension.

A few days ago, in a conversation with my respected asylum successor, Dr. Daniel Clark, President of the College of Physicians and Surgeons of Ontario, I requested him to state his experience in the exhibition of the acetate in uterine post-partum hæmorrhage, and to inform me in what doses he had given it. His reply was that his usual dose had been a teaspoonful, its action had been prompt and efficient, and he had never seen any collateral result moreremarkable than vomiting, in exceptional instances; but an invariable coincidence of this symptom was the complete contraction of the uterus.

Dr. C. has been even more heroic in his doses than Dr. Stephenson or myself. I more generally gave half a drachm than a whole one, repeating this when deemed necessary. Another of my old pupils some years ago informed me that his dose was two drachms.

I believe it will generally be found that in these large doses it acts as a moderate purgative within twenty-four hours; and, if it be desirable that, in order to avert transformation, it should be expelled from the bowels in this way, it may be better to err on the safer side, which certainly is *not* its exhibition in *small* doses.

I trust, gentlemen, you will not for a moment suppose that I inculcate the employment of this medicine in every case, however trivial, of uterine hæmorrhage, though I am firmly convinced of its harmlessness. You all understand too well the efficient mechanical means of inciting uterine contraction to imagine that where these are adequate to our purpose, I would employ uncalled for supplementary means.

TRANSLATIONS FROM FOREIGN JOURNALS.

BY ——— M.D.

OPERATION PER RECTUM FOR RECTO-VAGINAL FISTULA.—A description of this mode of operating in certain cases of recto-vaginal fistula is given in a late number of the *Archiv. fur. Klin. Chirurgie.* Dilatation of the rectum is accomplished by the introduction of a well-oiled single-bladed speculum applied to the posterior part of the bowel, the sides and anterior parts being put upon the stretch by hooks and a tenaculum or two, or an additional flat speculum. When necessary the sphincter may be divided in the median raphe posteriorly; this facilitates access to the cavity. The edges of the fistula are now pared transversely, and silk sutures introduced by Simon's needle holder, or Langenbeck's needles used for staphylorraphy. In the after treatment, Simon administers strong cathartics every second day, instead of the common practice of giving opium to produce constipation, as he finds the latter dangerous to successful union. He removes the sutures through the vagina,—the slight ulceration around the threads having enlarged the canals sufficiently to admit of the knots being withdrawn. Cases of recto-vaginal fistula which had been unsuccessfully operated upon through the vagina, were cured by the above mentioned operation. Five cases are reported, in all of which this mode of procedure was successful. Some of them were complicated with vesico-vaginal fistula.

CUTTING FOR STONE THREE CENTURIES AGO.—In the *Deutsche Med. Wochenschrift* the following account of cutting for stone (probably hepatic), is given, copied from the diary of Ludwig XI. :—"In the month of January, 1474, a number of physicians and surgeons appeared before the king, representing that several persons of importance to the state were suffering from stone colic, and agonizing pain in the side, and that in order that they should be properly treated, it would be necessary to discover the origin of this complaint. They asked permission to open the body (during life) of an archer, who had been convicted of theft and sentenced to the gallows, he having recently suffered from several such attacks. Ludwig granted their request, and the operation was publicly performed in the churchyard of St. Severin. After they had opened the abdomen, and examined sufficiently, the intestines—so says the diary—were returned, the abdominal walls were carefully united, and in 14 days the man had perfectly recovered. He was then pardoned and sent away with a sum of money."

THERAPEUTIC USES OF AMYL NITRITE.—In the *Med. Wochenschrift*, St. Petersburgh, No. 12, 1877, Dr. Maximowitsch gives the results of some experiments in the use of nitrite of amyl. Out of sixteen cases of migraine in which it was administered, it afforded relief in twelve. It was given by inhalation in doses of from 5 to 20 drops, placed on cotton wadding. In some cases the patients felt better after the first inhalation. In one case it was repeated eight times in an hour; in another case it produced unpleasant effects and had to be discontinued, and in two cases no effects whatever were produced. In two cases of facial neuralgia, not malarial, rapid improvement followed its administration. In an anemic patient complaining of giddiness of the head, it afforded instant and complete relief in a short time; iron was also administered. He also found it of service in vertigo arising from dyspepsia, and also in fainting spells from whatever cause. Attacks of hysteria and hystero-epilepsy were cut short by its use, where chloroform had failed to do good. Paroxysms of hysteria of an hour's duration were almost immediately relieved by five drops of amyl. It will cut short an attack of epilepsy, and where the aura is present, it will prevent the attack if used in time. In connection with bromide of potassium and atropine, it has prevented attacks for months at a time. He also used it with satisfactory results in five cases of poisoning by carbonic oxide. The patients were speedily restored to consciousness by its use.

TREATMENT OF RANULA.—Prof. Michel of Nancy (*Gazette Hebdomadaire*), in a late contribution gives a short clinical history of six cases of ranula, and the surgical treatment, by excision of the cyst. He discusses the nature and situation of the growth, and states that the cyst in its development in the majority of cases has no connection with any of the salivary ducts. He does not deny that in some cases ranula may be due to dilatation of the duct; but from observations made

during the above mentioned operations, and also from dissection of a ranula in the dead subject, he is convinced that it is more frequently found to have some other seat of origin. All the cases investigated by the author were entirely unconnected with the salivary ducts. The tumor in each case had evidently originated in the areolar tissue around the frænum linguæ. The microscopical examination of the contents of the cyst in these cases revealed globular and tessellated epithelium, with crystals of cholesterine, and in no instance was there to be found a reaction resembling that produced by saliva. The author recommends excision of the ranula as the proper treatment, and preferable to injection of iodine, or incision and cauterization combined, being more speedy and attended with more permanent results. Two methods are adopted: in one the tumor is freely incised and the walls of the cyst dissected away; in the other the cyst is wholly removed at once together with its contents. If the wall of the cyst is very thick, the latter method is to be preferred.

MULTIPLE PERINEAL CALCULI.—The following interesting case reported by Dr. Roja in the *Annali Universali di Med. Chirurg.* A young man, aged eighteen years, had required occasional catheterism ever since childhood on account of retention o urine, but after each operation he remained for a considerable time free from trouble. On examination the Dr. found a large perineal tumor, the size of the fist, and on introducing a catheter, it came in contact with a calculus in that situation. The patient was put under chloroform, and an incision made in the perineum through which about one hundred calculi were removed, some of them as large as a filbert, one of which only causing the obstruction. The stones were facetted and of prostatic origin consisting of magnesium carbonate, urates, and ammonia-magnesium phosphate. The Dr. incised the prostate through the wound and explored the bladder with his finger to make sure that none remained in that organ. The case progressed favorably and a perfect cure resulted.

QUININE IN EPISTAXIS.—A writer in the London *Lancet* says quinine is *the* remedy in epistaxis. He says that he has tried it more than twenty times, often in aged people, and has never found it to fail.

Correspondence.

GREAT WESTERN RAILWAY MEDICAL TARIFF.

To the Editor of the CANADA LANCET.

SIR,—The Great Western Railway Company has adopted and officially promulgated a singular tariff of medical fees for attendance on their employees along their various lines. One might suppose that such a company as this would allow a fair and reasonable remuneration for professional services in cases of accidents to their men. But what is the fact? That the munificent sum of *one dollar* for the term of one year, together with a free ride over their line to and from the patient, is the total amount offered! A man may meet with a serious accident fifteen or twenty miles away, and the surgeon is sent for, it may be to perform a capital operation and give all the subsequent attendance, and this for the sum of *one dollar*. Can this be called a fair transaction? What astonishment would sit on the manager's countenance were he required to serve the public on a similar scale of fees? The strange thing is, that with few exceptions, this tariff has been accepted, and that too without remonstrance or effort to repel the insult offered to the profession by the medical men along the line. They must be aware that it is either an imposition on their generosity or an attempt to obtain their unrequited services on the vague and illusory hope that by this means they may enlarge their more remunerative family practice. In either case it is not legitimate business and will be found in the end to be as unsatisfactory as it is unjust.

The medical profession has in general been able amicably to agree upon a scale of charges of a fair kind, both to themselves and the public. Why may they not unite to tell this powerful Corporation that it cannot have their services on other than fair professional terms? Surgeons might be willing to concede something on the score of humanity and to the claims which accidental injuries to working men may have on their benevolence, but the concession should not all be on one side. The company should have equal consideration, if not more, for men injured in its service, and be willing to secure for them on reasonable terms the best surgical aid. This is a question that demands

the serious consideration of the medical profession of this Province, if not also of the whole Dominion.

Yours truly,

D. L. P.

Brantford, Dec. 18, 1877.

Selected Articles.

ARSENICAL POISONING TREATED WITH DIALYZED IRON.

A case of arsenical poisoning occurred lately in my private practice, which seems to be valuable enough for publication, both on account of the completeness of the details and the intelligence and reliability of the patient, but especially as it is, so far as I am aware, the first case where the new remedy "dialyzed iron" has been put to the test as an antidote.

As I was leaving my office one morning, a few weeks ago, a young lady patient, Miss S., hastily entered, with a face indicative of intense pain and nervous disturbance, saying, "Doctor, I am poisoned." Her story was as follows. While attending to the wants of a valuable servant who was sick and confined to her bed, Miss S. found hidden away in the servant's trunk a paper of arsenious acid, which had been procured by Mrs. S. some weeks before, for use as a poison for rats. As this servant had been in ill health for some time, and morbid and melancholy, Miss S. at once very naturally, and no doubt very rightly, supposed that she had secreted the poison for the purpose of taking her own life. Quietly placing the packet of arsenic (which was open) in her pocket, she continued her duties, intending at the earliest moment to put it in a safe place. Days elapsed, the arsenic was forgotten, stored away in the pocket of her wrapper, until this unlucky morning, when, putting a couple of handfuls of gum-drops and bon-bons into her *arsenic pocket*, she sat down to her sewing-machine and her confectionery. She noticed from time to time, as she sewed, more powder upon the drops than seemed usual, but she continued quietly to dust them off as she ate, and went on with her work. *Can anything be more absurdly tragic than this unconscious suicide, deliberately eating gum-drops powdered with arsenic?* Probably an hour and a half passed in this innocent amusement, when suddenly, "becoming deathly sick, instantly followed by intense pain," as if, as she quaintly expressed it, "she had had a pure mustard-plaster on the inside of her stomach," she was roused to the consciousness that some strange mischief was at work. Terrified on remembering the arsenic, she attempted, unsuccessfully, to relieve her stomach with warm water; then, unwilling to alarm her mother, who was also an invalid, she hastily threw on her dress and hat and hurried to my office, about two blocks away. Fortunately for both of us, I had on my table a sample bottle of dialyzed iron (John Wyeth & Bro.), and as soon as she told me she had taken arsenic, and before she began her story, I administered a half-tablespoonful of the iron well diluted in a tumbler of water. This gave her almost instant relief. I repeated the dose in ten minutes, and then gave her a bottle of the iron, directing her to take a similar dose every half-hour, and, later, every hour during the day. I saw her at her home in a few hours after, but she had had no return of her pain, except some slight cramp in the lower bowel and limbs; and a dose of magnesia at night, with mucilaginous drinks, soft food, with occasional doses of the iron well diluted, kept up for a few days, completed her cure. At my request, the day after her attack, Miss S. put into my hands the pocket cut from the wrapper, which she could not be persuaded to touch after her poisoning. This I transferred to a reliable analytical chemist, from whose report of his examination, now in my possession, I condense the following: "In the pocket of a chintz dress I found a small packet labelled Arsenic,—Poison.—and in this packet a second envelope, open on its long and upper side, containing a white powder. Both outer and inner envelopes were worn as letters carried in pockets are. Between the outer and inner envelopes was a white powder, and in the pocket itself, mixed with the powder, I found two (2) sugar-crystallized, soft gum-drops, and one (1) sugar-coated bon-bon, all three (3) richly covered with the powder. The powder, which with a brush I took away from the gum-drops, and the dragée, weighed 3½ grains, and the remaining powder, after separating the gum and sugar, weighed 2 1/16 grains. In the pocket I found also 6⅝ grains of the white powder. The powder obtained from the gum-drops and dragée gave all the tests arsenious acid gives."

What amount of arsenious acid my patient swallowed, it is, of course, impossible to say. It is certain that from this open package of arsenic a considerable quantity escaped into the pocket, and the gum-drops were mixed with it, as she states "that she had to dust the powder off upon her work as she ate," and the three remaining after, show 2 1/16 grains of arsenious acid upon them on examination by the chemist. I have perhaps been unnecessarily full in the details of this case, but I think they have established several facts. 1st, that my patient did swallow, in the space of an hour or more, *numerous poisonous doses* of arsenious acid in powder; 2nd, that I found her with marked symptoms of arsenical poisoning; and, 3rd, that by the administration of moderate doses of dialyzed iron, well diluted, I was enabled to give her immediate and certain relief, and ultimate and entire restoration to health. I do not

propose in the limits of this paper to discuss the exact chemistry of the dialyzed iron. It is, I believe (when properly prepared, as I have since investigated carefully the process of its formation), a solution of peroxide of iron in the colloid form, with perhaps a trace of hydrochloric acid; but that it will, when very largely diluted with water, perfectly coagulate arsenious acid *in solution*, any one can satisfy himself in a five minutes' test. The only remaining point of interest professionally is, will it neutralize arsenious acid when taken *in powder* (*bulk*) into the stomach? It is held by most authorities, I believe, that when arsenious acid is taken in bulk into the stomach, the iron antidote is not reliable. (See Dunglison, R. J. (latest paper on the subject), in his "Practitioner's Reference Book," page 229.) Yet we know from daily experience that arsenious acid is absorbed by the stomach when taken in minute doses, and I think the evidence in the case shows that arsenic powder did poison when presented to and acted upon by a comparatively empty stomach (at least three hours having elapsed since her breakfast), and that the solution of peroxide of iron (dialyzed iron) did prove a prompt and reliable antidote, coagulating and neutralizing the arsenic. Arsenious acid *acts as it is dissolved*, and the antidote (if supplied) combines, *pari passu*, with the solution formed by the liquids of the stomach, and renders it inert before damage is done to the mucous coat of the stomach or it is absorbed into the system. Within twenty seconds after I learned that arsenic had been swallowed I sent a full dose of the antidote after the poison, and with positive and immediate relief to the patient. My experience with dialyzed iron as a pleasant and efficient means of introducing iron into the economy is too limited for an opinion, but I feel disposed, from the history of this case, to strongly recommend it as a safe, reliable, and always-ready-at-a-moment's-notice remedy and antidote for arsenical poisoning. —*Dr. Reed, Medical Times.*

TREATMENT OF FRACTURES OF THE SHAFT OF THE FEMUR.

CLINIC BY FRANK H. HAMILTON, M.D., NEW YORK.

First, I wish to remark that fracture of the shaft of the femur in the adult is almost always oblique. The fracture is usually very oblique, so much so, that it almost never happens that we can set it, in the ordinary sense of the term; that is, we cannot make the fragments set supporting each other. The fracture is so oblique, that unless the fragments are maintained in position by extension and counter-extension, they always overlap each other. This is the law. There are exceptions, of course, as, for example, when fracture occurs in a paralyzed limb, etc.

When the fragments overlap, there will be a projection equal to the entire thickness of the bone. This is illustrated in the specimens you see here. In this specimen the fracture took place about the middle of the shaft, and the overlapping, as you see, is as has already been stated, and the projection is very marked.

The same thing can be observed in another specimen, in which the fracture occurred a little higher up, very near to, but not involving the neck of the bone. In this case there was no extraordinary obliquity, but the fragments overlapped each other fully two inches the lower fragment riding upwards until it impinged against the neck of the bone.

As a rule, then, there is no such thing as setting a fracture of the shaft of the femur, in the ordinary acceptation of that term. The bone can be placed in position, and held there, perhaps, if sufficiently powerful extension and counter-extension are employed, but it does not set upon itself so as to hold itself.

In this particular instance the plaster-of-Paris dressing was employed, and was applied while the patient was under the influence of chloroform and while full extension was made with pulleys. The splint was worn for several successive weeks, and when the patient died, two or three years after, it was found that just such shortening as the condition of the bone would permit had taken place; the lower fragment had ascended until it struck the neck of the bone. Practically, there was no extension or counter-extension in the case.

How is the tendency in the fragments to overlap, from the action of the powerful muscles, to be overcome?

Certainly never by setting the bone, as it is called, and then binding it tight with bandages, because you will have cut off all circulation in the limb long before you can bind it sufficiently tight to maintain the proper position of the fragments. This is but plain common sense. No surgeon would dare to attempt to treat fracture of the thigh in that manner. He may put on lateral supports and apply bandages, and the position of the fragments may be in some slight degree maintained by pressing them against each other, but this dressing will not prevent shortening.

How then will you overcome the tendency to shortening?

Until the latter part of the last century all surgeons from the earliest periods employed the long, straight splint. The method was generally to simply pull the limb out to a certain length, and then bind a long, straight splint to the side of the limb and side of the body. The old-fashioned long splint is illustrated by this simple and practical device employed by a surgeon under Stonewall Jackson, that great soldier and good man. It

is the simplest and most prompt plan which could be carried into effect in an army constantly upon horseback. Essentially that plan was employed up to the time of Pott, who at the close of the last century wrote an essay, in which he declared that fractures of the thigh all united with great shortening, but that this tendency would be overcome by placing the limb in a flexed position.

This was a new theory, but one which was specious, and which was soon accepted by the English surgeons, a few American surgeons, but never by the French. It soon came to be known as the treatment by the use of the double-inclined plane, although the original idea of Pott was simply to flex the limb, hoping thereby to overcome the action of the muscles. This plan of treatment by the use of the double-inclined plane, or by the flexed position, as it is also called, has its advocates to the present hour.

In England there is, perhaps, no surgeon of eminence who employs it; in France it was never adopted; but in the United States the late Dr. Nathan Smith and Dr. Nathan R. Smith employed it. And Dr. Hodgen, of St. Louis, one of the most distinguished surgeons in the West, still employs this method of treatment. The Drs. Smith employed and Dr. Hodgen employ suspension in connection with it. There are, perhaps, a few other leading surgeons connected with large hospitals who prefer it yet, but almost universally it has been discontinued. These are simple facts, and with here and there rare exceptions, the profession has returned to the use of *the straight* splint; and I think surgeons have done so because they have found they can make longer and straighter limbs in this position. Let us then return to a consideration of the history and progress of the treatment in the straight position.

How did surgeons formerly contrive to get hold of the foot in order to make *extension?*

It was always done by means of some form of gaiter. They all were intended to get hold of the foot in its circumference, and in as comfortable a way as possible, to afford a means by which extension could be made. But all of them were liable to cause ulceration at some point; sometimes on the instep, sometimes on the top of the heel behind. Ulcers were almost certain to be made if very much weight was employed in making the extension.

As to the *counter-extension*, that was made in essentially the same manner—that is, by some mode of pressing against the tuberosity of the ischium. A variety of methods have been employed, but that which has been most generally used is the perineal band.

But what has been the experience in the use of the perineal band? Every now and then a deep ulcer has been caused by this means of making counter-extension.

We had then two evils to contend with: *first*, the extension apparatus, which was liable to give rise to ulcers upon the top of the foot and heel; and *second*, the counter-extending band, which was liable to give rise to ulcers in the perineum. The liability to make ulcers was so great that the limit of our extension was about ten or fifteen pounds.

At length Dr. Josiah Crosby, of Hanover, N. H., devised the method of making extension by the aid of adhesive plaster applied in strips to the sides of the limb. Broad strips of adhesive plaster were laid along the lateral surfaces of the leg, and secured in place by means of bandages. They take hold upon the skin and nowhere else, and it was soon found that an extension weight of twenty or twenty-two pounds could be used without the least liability of producing ulceration. That was the first great step of progress made in the treatment of these fractures. It gave us a means of making extension which was in every respect satisfactory.

Still there was need of some mode by which counter-extension could be made without incurring the risk that attended the use of the perineal band. It remained for Dr. Van Ingen, of Schenectady, N. Y., to suggest that, if the foot of the bedstead was raised, we need not use the perineal band.

It is now more than twenty years since my attention was first drawn to this suggestion, and I did not then believe that it would ever answer as a method of making counter-extension. It will not answer if employed as Dr. Van Ingen recommended, because he raised the foot of the bedstead so high that the patients could not endure the discomfort produced in their heads. But Dr. Moore, of Rochester, took up the suggestion and began to put it into practical application, and it was not long before we became satisfied that it was *the* method of making counter-extension. It has been many years since I have seen a perineal band in this hospital. We make our counter-extension in every case in adults by simply raising the foot of the bedstead about four inches, and it is sufficient to enable us to apply twenty or twenty-two pounds of extending force, if necessary, without pulling the patient down in bed at all, provided the head and shoulders are properly supported. This method of making counter-extension certainly never causes ulceration. We have then a means of making extension which does not give rise to any trouble, and the same is true of counter-extension.

In order that we may have the counter-extending force furnished by the entire weight of the body it is necessary that the pillow should support the *head only*, and not the head and shoulders.

I have said that we have a means of making extension which permits us to use twenty or twenty-two pounds weight, and that that is the full extent to which it should be carried.

Why may we not make greater extension?

Because the ligaments of the knee-joint will not permit of greater extension without becoming painful.

If we stand in a position in which the knees are thrown back to their full extent, they soon become painful, and the position cannot be maintained without great suffering.

We usually stand with the knees bent at an angle of one or two degrees, and if straightened more they become painful.

Some patients will bear fifteen, some twenty, and some twenty-two pounds extension, which is the extreme amount that should be employed. By no means put on such an amount of extension as causes the patient pain.

A few years ago, at the suggestion of German surgeons, who have done so much good and praiseworthy work, American surgeons began to use plaster-of-Paris in the treatment of fractures of the femur. In adopting that plan of treatment, they went a step backward instead of forward, for they adopted a method by which they could not secure any degree of extension and counter-extension, as any one can satisfy himself by watching a case throughout its treatment. It is easy of demonstration that it does not afford any extension and counter-extension. If the plaster is put on so that pressure is made on the perineum, it will cause ulceration. I have seen a case in which ulceration extended through the perineum, and up the back six or eight inches, and as deep as my hand. If you do not use the perineum to make pressure against, you must use the side of the thigh.

What kind of a surface does the thigh furnish? It is an oblique surface; there is a gradual decline from the hip to the knee, and inasmuch as the plaster will loosen within four or five days, so that you can run your hand in between it and the surface of the limb, there is no counter-extension at all; not the slightest.

The entire foot and limb may be enclosed in plaster as snug as you please, but you have no counter-extension; not a particle. While the plaster was being used in this hospital, I saw more shortening than I ever saw before in my life, and I saw two or three deaths, occasioned by the use of the plaster-of-Paris dressing.

These cases have been carefully recorded in the 5th edition of my work on Fractures.

I think we have gone several steps backwards when we use the plaster-of-Paris dressing, and I am happy to say that it is almost abolished. At the present time there is scarcely one of my colleagues in this hospital who employs it in the treatment of fractures of the thigh; there may be one, but I am sure you will not use it more than once or twice in country practice.

The apparel, when complete, as I usually employ it, is generally known as Buck's extension. But Dr. Buck was not the first to employ the adhesive plaster, or to suggest raising the foot of the bed for the purpose of making counter-extension, and these are the most essential features of the treatment. So it is with other parts of the apparatus. We are indebted to Dr. Buck for a great deal in the treatment of fractures, but this apparatus has been so long employed in this country and so much modified that it may with more propriety be called American. In this case the apparatus is complete, and let us see what we have. *First*, we have two broad strips of adhesive plaster reaching from the knee to a few inches below the foot, and secured to the sides of the limb by means of a roller bandage. A piece of board is attached to the lower ends of the strips of plaster, and from the centre of the board a cord passes over a pulley fastened to the foot of the bedstead. In some of these cases you will notice that we have two pulleys, and in others only one.

Originally, a simple straight piece of board, having a mortise in it, as you see, and carrying a pulley, was secured in the upright position to the foot of the bedstead. The upright seen here is iron and can be adjusted and removed with ease; it is an improvement; that is, it is somewhat more convenient than the original wooden board.

The piece of board to which the adhesive straps are attached must be of sufficient length, so that when extension is made they will not impinge upon the malleoli.

The strips of adhesive plaster need not go above the knee.

Then as to the counter-extension. We have, as you see, no perineal band. We have simply raised the foot of the bedstead about four inches, and have seen that the patient rests his head, *not his shoulders*, upon a pillow. We next apply four short side-splints to the thigh; three will not answer; it is necessary to have four independent side-splints, which nearly encircle the limb. We are employing here splints constructed of felt, which is made of several thicknesses of cotton cloth. This material is one of the best that can be employed for this particular purpose as it is easily worked, is sufficiently flexible, and at the same time possesses sufficient firmness.

These side-splints are secured in position simply by encircling the limb with four or five fillets and tying them with a convenient knot. In this manner the fragments are kept in proper coaptation, and the splints can be easily removed to afford an opportunity for inspecting the limb.

In addition, you see fastened to the side of the limb and to the side of the body a long splint, about four and one-half inches in width extending nearly to the axilla, and having at the lower end a broad cross-bar to prevent its tipping.

What is the use of all this? *First*, it prevents eversion of the limb.

Second, and most important, it keeps the limb and body in a direct line.

If the fracture is pretty high up, or even in the middle third of the femur, I regard the long side-splint as the most essential part of the apparatus in securing the broken femur in an absolutely straight line.

In the case before you the fracture is nine weeks old; union is not yet perfect, but the limb is perfectly straight.

This is the model dressing for fracture of the thigh occurring in adult life, and in its present improved condition is the splint employed by the larger portion of the surgeons throughout this city.

When plaster-of-Paris was first introduced as a means to be employed in the treatment of fractures, the idea was that the splint could be kept on until the treatment was completed.

I have treated a great many cases myself in that manner, and I know what I say. It was found that scarcely ever more than two or three weeks elapsed before it became necessary to cut the splint open, remove a piece, and then bring it together and secure it with a bandage, or else remove it altogether and adjust a new one.

When a plaster splint is cut open and a piece removed, it will never properly fit the limb again, so that it becomes an almost absolute necessity to expend a prodigious amount of labor in removing the dressing entirely every two or three weeks and applying another new splint.

In nearly all these cases treated by extension and counter-extension there is more or less shortening. That is the rule. In this case the amount of shortening is three-sixteenths of an inch. Formerly the average amount of shortening varied from three-quarters to one inch; now it is usually one-half inch, or less.

Here is a case, gentlemen, in which the plaster splint has been applied for purposes of illustration.

In order to secure extension even temporarily, the plaster splint must be carried over the foot, and then it must be extended up over the limb and through the perineum; then it is carried around the pelvis so as to embrace it completely.

If this splint remains on a week it will be loose —indeed, it is so loose now, and it was applied this morning, that the hand can be slipped in between it and the skin around the pelvis and perineum, and you can see that it affords nothing in the way of counter-extension.

This is the ordinary method of using plaster-of-Paris in the treatment of fracture of the thigh.

[Several cases were exhibited and brief allusion made to the peculiarities in each.]—*Medical Record.*

On Testicles and the Procreative Power.—Dr. H. A. Spencer, of Erie, Pa., in *Med. and Surg. Reporter*, reports a case of the removal of one testicle, which was followed by no apparent diminution of the procreative power of the individual, he having subsequently begat a number of children.

CONVULSIONS IN TYPHOID FEVER.

CLINIC, BY J. M. DA COSTA, M.D., PHILADELPHIA.

The rather sudden termination of one of our cases of typhoid fever, towards the close of its third week, makes it incumbent on me this morning to explain to you the mode of death, and to point out to you some uncommon features of the speedy and unexpected end.

Just as convalescence appeared definitely established and the patient seemed out of danger, he was seized with general convulsions, and in a few moments expired.

After refreshing your recollection of the case by reading the clinical notes, I propose to devote the remaining portion of the hour to discussing the significance of convulsion as a symptom of typhoid fever, and its bearing upon the treatment of the disease:—

Albert McD., a seamen before the mast, was brought, Dec. 30th, 1876, from shipboard into our wards, with the statement that he had been sick for two weeks, the principal symptoms being great prostration, fever, headache, and diarrhœa. The remainder of the crew were healthy, and no cause was assigned for his illness. He was 21 years of age, unmarried, of good physical frame, and, to all appearance, a man of temperate habits.

His axillary temperature on the evening of admission was 104°. During the night he was delirious, but the next morning he responded intelligently to questions, and gave a connected account of his illness. He stated that he had been suffering with diarrhœa for a week before, being regarded as unfit for work, and that he had been in his berth for only ten days before admission, during which time he was pursued by strange dreams. The headache was principally frontal, and was severe and constant. The record taken on his admission into the hospital, speaks of his tongue being dry and coated from the centre to the edge, and displaying a red wedge shaped patch, its base corresponding with the tip of the tongue. The gums and teeth were covered with sordes, and the breath was offensive. There was complete loss of appetite; the bowels were moved twelve or fifteen times a day, the discharges being watery. The abdomen was tympanitic, and a few rose-coloured spots were seen on the lower part of the chest and abdomen.

The kidneys performed their function well, and the secretion was of a light amber colour, acid in its reaction, of specific gravity 1020, and contained a small amount of albumen; a microscopical examination failed to discover casts.

He was ordered dilute nitro-muriatic acid, ten minims thrice daily, and eight grains of quinia daily. To relieve the diarrhœa, he received suppositories of acetate of lead and opium During the next few days he gained rapidly, and the temperature-chart showed the declining gradations peculiar to this stage of the disease; thus his temperature on

Dec. 30 was		104° P. M.
Dec. 31	102½° A. M.	103½° P. M.
Jan. 1	102½° A. M.	103° P. M.
Jan. 2	101½° A. M.	102° P. M.
Jan, 3	101½° A. M.	100° P. M.

Jan. 4th the temperature in the morning was 101°, and the patient had a pulse of 96, of good volume, and only slightly heightened respiration, and no cerebral symptoms; yet he died in the afternoon after a convulsion lasting a few moments. During its progress his face became purple, the head was drawn back, the neck swelled; he seemed to be gasping for breath, and struggled so violently that his limbs had to be held by the surrounding patients to prevent his being thrown from the bed.

Passing by the minor details of the case, we notice, first, that the statement of the patient, that he had been ill for nearly three weeks, was confirmed by the temperature observations. The highest point marked was 104°, on the evening of admission; following this, the evening exacerbations, after each morning's fall, showed a declining series. Nor was the improvement to be found only in the vanishing fever heat; there was no fresh eruption of rose-coloured spots, indeed, those noticed upon admission were gradually fading, the discharges were reduced and under control, the tongue was cleaning, and he slept at night without delirium, when, without warning or apparent cause, we notice that he had a violent, general, and rapidly fatal convulsion.

Now let us see if the autopsy explains this unlooked-for result, or is able to throw any light upon the cause of death. In cases of sudden termination of typhoid fever, we naturally think of intestinal perforation, of exhaustiug internal hemorrhage, or of cerebral effusion; in the present case this is not a subject merely of speculation, as we have the organs before us; and it is to their appearance that I invite your attention.

Autopsy.—The lungs, with the exception of some engorgement posteriorly from hypostatic congestion, are found to be healthy and crepitating throughout. There is no evidence of pleurisy; there are no adhesions or effusion. The *heart* weighs 10½ ounces; the left side is firmly contracted, the ventricle being empty, the auricle full of fluid blood. The right side seems flabby, the ventricle containing some fluid blood and a white, fibrinous clot, the auricle having fluid contents and no clot. The cavities, walls, except as regards the flabbiness of the right side, and the valves appear healthy.

The *stomach* shows some congestion of mucous membrane, and holds coagulated milk; the membrane is reddened, and is softer than normal. The *peritoneum* contains some serous fluid, but exhibits no other sign of disease. The *liver* is healthy in every respect. The *spleen* is large and flabby; it weighs 19 ounces, and in section displays a currant-jelly appearance; the tissue breaks readily under pressure. The *mesenteric glands* generally are enlarged. In the *small intestine* there is no evidence of ulceration or perforation, but there is marked increase in size in *Peyer's patches*, and in the *solitary glands* of the large and small intestines. These look like shot under the mucous membrane; Peyer's patches are very much infiltrated, and darker in colour than the surrounding parts. There is nowhere a sign of perforation.

The *kidneys* weigh 7 ounces each. The left is large, firm, and irregular. The capsule is thickened, adherent, and on removal leaves a markedly granular surface. Upon section, a urinous odor is noticed the organ is congested, especially in the pyramids, and the cortex appears slightly swollen. A similar condition is found in the right kidney. The pathologist has just given me a report of the microscopic examination of the kidneys in this case, in which he pronounces them to be in a state of granular degeneration. The *supra-renal capsules* are normal. The *brain* is rather soft, but is perfectly natural on gross examination.

Now, looking at the post-mortem results, we find in the kidneys alone sufficient ground for the explanation of the convulsion seizure; and its uræmic nature is further rendered most probable by the presence of albumen in the urine, and by the well-known fact of the favouring element of the accumulation in the blood of the products of waste and disintegration of tissue during the fever process. Bnt before we adopt this view, let us consider what other causes may determine convulsions in typhoid fever; and thus see whether any of them is likely to have been at work in this particular case.

A patient may have a convulsion from overloading the stomach. Every hospital surgeon knows that the friends of the sick man have ways of eluding the most Cerberus-like of gate-keepers, and are thoroughly happy if they can convey quantities of apples and peanuts to the patient to fill his stomach with when the attention of the nurse is diverted. The smuggled articles may have all the proverbial flavour of forbidden fruit, but they often lead to disastrous consequences. Among these may be convulsions, and death may occur as the direct result of paralysis of a heart already weakened by fever. We have a parallel iu the way feeble children perish from convulsions brought on by indigestion. In the case we are discussing there was some suspicion of improper food having been given, but at the autopsy none was found in the stomach.

Now as to the direct influence of the typhoid

fever poison itself. Could the nervous system be so excited by this as to produce a convulsion? In answering this question you will naturally think that the nervous symptoms are among the most prominent in typical cases of typhoid fever; you will recall the irregular chills at the onset of the disease, the pains in the loins and limbs, the ringing noises in the ears, the giddiness, the severe headache, and the profound prostration; you will reflect on the restlessness, the subsultus, vigilance, and delirium which belong to the course of the complaint almost as surely as do the diarrhœa and fever; you will think of all these evidences of great derangement of the nervous system, and be prone to conclude that convulsions are likely to be among them. But they are not. Convulsions in typhoid fever are rare, so rare as to be regarded almost as a clinical curiosity, and to be set down as something outside of the regular history of the disease. In nearly three thousand cases of enteric fever admitted into the Fever Hospital in eight years convulsions occurred in only six, Murchison tells us in his classical treatise. In typhus they happen much more frequently.

When I make these statements I allude to general convulsions. Spasmodic movements, such as jerking of the tendons, hiccough, twitchings of the muscles of the face, are, we know, not uncommon in typhoid fever; and choreic movements, rigid contraction of the muscles of the extremities and even cateleptic states, though far from common, have been often described. But convulsions from any cause in typhoid fever are extremely infrequent, and the most unusual kind is from the direct influence of the poison on the nerve centres, At least this is true of adults; a different statement must be made of children. But whether in children or in adults, convulsions due to the fever poison alone, happen at the onset, or in the first week of the malady.

Gentlemen, you know well that the vagaries of hysteria baffle any description. Among these vagaries is the occurrence of hysterical seizures in the early part of typhoid fever. I saw such a case a few years since with an eminent physician in this city. The hysterical outbreaks and convulsions in the first week of the fever were extraordinary and misleading; violent neuralgic pains in the head also existed, and the case looked like anything else rather than like one of typhoid fever. Nothing but the decided fever temperature and a certain irritability of the bowels excited even suspicion. On the eighth day appeared the characteristic eruption. I am sorry to add that the case became a very grave one, and died in the second week.

Epilepsy is among the causes of convulsions during an attack of typhoid fever. The wonder is that it does not show itself oftener. The reason I suppose to be in the strange law by which the affection is temporarily obliterated when an epileptic is stricken with an acute disease. We see whooping-cough suspending it, fevers lulling it. But the malady is not dead, it is slumbering; and it may start up vigorously during the last stages of the fever or during convalescence. I attended a case some time ago, in which three epileptic seizures happened in the course of twenty-four hours in the third week of the enteric fever. There had been no kidney complication, and no cause other than epilepsy could be discovered for the attack. The patient was very drowsy after it, yet the recovery was not much retarded by the accident. A positive diagnosis in such cases can only be made by the aid of inquiry concering the previous history. But the time of the occurrence of the convulsions should always arouse our suspicions.

Typhoid fever may become complicated in its course with apoplexy, and the effused blood lead to such damages as to give rise to long-continued palsy. A case of this kind, with right-sided hemiplegia of two years' standing, came under my notice recently at the clinic of the Jefferson Medical College, in the person of a sturdy young farmer. Where the clot is effused on the surface of the brain, convulsions may readily be associated with the apoplectic seizure. . . .

I told you, at the beginning of the lecture, that I believed uræmia to have determined, in the case we have been investigating, the fatal convulsion. Irrespective of the diseased appearance of the kidneys which I have submitted to your inspection, you may judge, from the description I have given you of other exciting causes and how they act, that they do not here apply. Let us now study a little more closely how the uræmia with its dire results is brought about.

The noxious urinary ingredients may be absorbed into the blood in consequence of the distension of the bladder. It is well known what a paralyzing effect low fever exerts on the muscular coat of the bladder. The viscus may become greatly distended, as we can recognize by percussion, although the patient seems to be voiding natural amounts of urine. The result of the accumulation may be the poisioning of the system with urea or the products of its decomposition. I shall not readily forget the impression made on my mind by a case of this kind seen a number of years ago. The young man lay for several days in a state of semi-coma, associated with marked twitchings of the muscles of the face. He was more than once on the verge of a general convulsion; passing a catheter several times a day after the difficulty was recognized, removed the untoward symptoms.

But the most common cause of the uræmic poisoning, and of the convulsions that may attend it, is to be found in disorder of the kidneys. If, indeed, you will collect the recorded cases—they are, it is true, not many—you will find a condition of diseased kidney or antecedent albuminuria in the

majority of them, although the connection between this and the convulsion may have passed unnoticed. But is albuminuria always antecedent? Not to needlessly obscure the subject in your minds, but to warn you of a source of fallacy, I must state that, in some cases of fever, there may be an excess of urea and the products of tissue-waste in the blood, progressing even to the production of uræmic convulsions, without the presence of albumen in the urine. The secretion in this case is scanty. The urea is found in deficient quantity in the urine; while in the blood we find alterations produced by its presence, or of the substances it gives rise to. We may have to seek the advice of the professional chemist to determine this point; and I have more than once been most efficiently aided in solving the obscure clinical problem by the skill of our pathological chemist, Dr. Hare. Again, convulsions, at any time and from any cause, may themselves produce transient albuminuria, so that the detection of albumen in the urine for a day or two after the attack is not sufficient to establish its uræmic character.

In cases where albuminuria and undoubted disease of the kidney exist, and convulsions have happened, does the renal difficulty antedate the fever, or, is it a complication? It may be either. Chronic nephritis grants no immunity from typhoid fever; on the other hand, an engorgement of the kidney, an accumulation of epithelium in the tubules, and the beginning of a parenchymatous nephritis are met with, as part of the typhoid fever process, and may be sufficient to clog the kidney to such an extent as to interfere with its function. You will ask me how are we to know if the kidney disorder belongs to the fever or not? We cannot always know. It is true that considerable quantities of albumen, the presence of markedly granular or fatty casts would determine the antecedent nature of the malady. But some tube casts may also be found in the urine coming from the hyperæmic fever kidneys; and we may not detect them at one examination in the urine of a chronic renal affection. The presence of albumen from the onset of the fever would greatly favour the supposition of the latter; for in typhoid fever albuminuria is not an early symptom. Again, we may have the lesions determined by the fever process adding to the embarrassment of an already diseased organ; and thus producing the inaction which has led to the uræmic seizure. Such I take it happened in the case which we have been discussing this morning.

Now, I have conveyed to you a wrong impression if I have led you to suppose that convulsions must always happen in consequeuce of the uræmia met with in fevers. Coma is, perhaps, the more common result; or a state of half-coma with convulsive twitchings. We have recently had a case of uræmic coma in the hospital which some of you have seen. . . .

But I must revert to the subject I have been attempting to elucidate, convulsion in typhoid fever. We have found that it may be due to a variety of causes, though uræmic is the most prominent. The *prognosis* will of course depend very much on its exciting cause. It is generally unfavourable. The most favourable prognosis is, if the seizure be in an epileptic and an outbreak of epilepsy, or if the subject of the convulsion be a child overcome at the outset with the fever poison, or be affected with an apex pneumonia; of the uræmic convulsion, that associated with retained urine in a distended bladder justifies the most hope.

The *treatment*, too, will largely depend on our knowledge of the cause. I will merely point out how important it is to take care that the broken-down waste is not retained in the body, and that the kidneys are kept freely acting; and how readily careful attention to the state of the bladder may prevent a serious mishap. During or soon after the fit we must see to it that the head is kept cool, and the flow of blood in the body equalised. Cupping at the back of the neck, and even general bloodletting, suggest themselves among the remedies to diminish the vascular tension. These remedies are potent also for evil; and it must in an individual case always remain a matter for judgment, whether the patient is in greater danger from a local injury to brain or lung and the general turgescence of the vessels, or from the extreme debility that attends the fever. In deciding this the pulse and the state of the first sound of the heart are our chief guides. But I cannot now further enter into this subject; it involves much, having a wider range than can be accorded to my discourse. Let me only add that, if the convulsion be due to apoplexy, and associated with one-sided palsy, the abstraction of blood seems to me imperatively indicated. If the convulsions are epileptiform in a subject predisposed to epilepsy, bromide of potassium will be our main reliance. But, whatever treatment be employed, let it be active, and take into account the pathological condition which has occasioned the outburst.—*Med. News and Library.*

CLOSURE OF THE VULVA FOR VESICO-VAGINAL AND RECTO-VAGINAL FISTULA.

BY DR. GOODWILL.

Thirteen years ago this woman went into her first labour, during which she was attended by two most excellent obstetricians. It happened to be an arm presentation, giving no chance for turning, but showing a tendency to spontaneous evolution. While one physician was away and the other asleep the child was born. As a result of these complications she had very extensive sloughing of the upper and outer wall of the vagina, in

the course of which the base of the bladder and a large portion of the urethra were eaten away. Since that time the woman has menstruated but twice. Last spring she came to me to have the operation for vesico-vaginal fistula performed. This I found to be utterly impossible; there was nothing from which a flap could be made. So I passed the galvano-caustic wire (insulated completely except at its point) into her rectum, and made an artificial recto-vaginal fistula with the intent of converting the rectum into a bladder. At first the rectum objected to the presence of the urine, and as a result she was constantly obliged to go to stool. Afterwards, however, it became more accustomed to its new office, and she only had a passage two or three times daily. I took this first step in my operation some months ago with a purpose. Artificial recto-vaginal fistulæ are very loath to close up again, and the success of the operation for the closure of the vagina depends, primarily, of course, upon the integrity of the opening into the rectum. I am going to perform an operation that, so far as I know, has been successfully performed but once before. You will find a note of this case on pages 43, 44, of Dr. W. W. Keen's Toner Lecture for 1876. The case he gives occurred in his own hospital practice. I intend to-day to close up this woman's vulva by sutures. Dr. Keen had to perform some thirteen operations to secure accurate healing of the sides, but the woman upon whom he operated was vastly improved.

I shall begin by shaving off the hair from each side of the vulva where I intend to put in my stitches. Now that the hair is out of the way I proceed at once to snip off the skin with a pair of curved scissors, beginning below so that the parts may not be obscured by blood. Every now and then a little artery spurts, which I secure at once by a *serre fine*. Scissors do not always behave well under such circumstances; the edges may not be perfectly true; still I prefer their half crushing action to that of a knife. They do away with a great deal of bleeding. You notice that I have been snipping off the skin and mucous membrane well into the vagina on each side. Every now and then I ask the assistants to relax their hold so that I may fit the sides accurately together and see where I am. Just here at the entrance to the meatus I must work with great caution. If any of the veins of the bulbs were cut I might cause very serious bleeding. I think I have pared off all the mucous membrane needful on each side now, and am ready to put in my sutures. But first I must cut off these "aprons," nymphæ, for they are no longer of use, and will only interfere with the accurate healing of the sides. These plastic operations are tiresome, but I must resist the desire to hurry through them for the woman's sake. I put my first suture in on a level with the lower margin of the arms, and pass it through one side with a sweep. Always bring out the stitches on the edge of the denuded surface. I do not expect this to be nearly as successful an operation as that for perinæum. I have passed eight sutures through. I have included plenty of tissue in my stitches so that they won't tear out. For this purpose I thrust the needle straight back at first and then bring it round. If these sides do not heal completely I shall have to open the wound again. At the last stitch and that nearest the symphysis pubis I have passed my needle and wire all the way round. The great difficulty always is to see that the points of exit and of entrance of the sutures are exactly opposite. Now I am ready to draw the sides together. As I tighten each suture I syringe out the part carefully so as to wash away all the urine from the sides of the wound. In clamping the sutures I must use very large shot in order to make the fastenings secure. I will use two clamps for each of these lower stitches. The most difficult stich for healing is the last, that just at the symphysis pubis. All the sutures are now fastened. It makes, you see, a very clean apposition. I shall have a sigmoidal catheter passed through the rectum into the woman's bladder, and the rectum drained by a flexible gutta-percha tube. Of course her knees must be bound together, and she must be given opium enough to dull the pain and keep her bowels locked for eight or nine days. Be sure that you always put a pad between the knees before binding them together. [When the stitches were removed on the ninth day, the union of the sides were found to be complete except the site of the meatus urinarius. At this spot a small fistulous opening remained, through which the urine trickled out. The doctor attributed this opening to the fact that, underestimating the strength of the sphincter ani, he had used a flexible catheter instead of a silver tube to drain off the urine, and that the contraction of the muscle had closed the catheter and so forced the urine to find another means of egress. He further stated that he would attempt the closure of the fistulous opening by cutting flaps from both sides. This secondary operation he would postpone for a couple of weeks. until the patient had time to regain flesh and strength.]—*Boston Med. Journal.*

THE EMPLOYMENT OF ANÆSTHETICS IN LABOR.

M. Piachaud read a paper before the International Medical Congress of Geneva, in which he advanced the following conclusions:

1. The employment of anæsthetics is, as a general rule, advisable in natural labor.

2. The principal substances which have been

used for this purpose up to the present time are ether, chloroform, amylene, laudanum, morphia hypodermically, chloral by the mouth and by injection.

3. Of these chloroform seems to be preferable.

4. It should be administered according to the method of Snow, that is, in small doses at the beginning of each pain, its administration being suspended during the intervals.

5. It should never be pushed to complete insensibility, but the patient should be held in a state of semi-anæsthesia, so as to produce a diminution of the suffering.

6. The general rule is never to administer chloroform except during the period of expulsion; but in certain cases of nervousness and extreme agitation it is advantageous not to wait for the complete dilatation of the os.

7. Experience has shown that anæsthetics do not arrest the contractions of the uterus or abdominal muscles, but that they weaken the natural resistance of the perineal muscles.

8. The use of anæsthetics has no unpleasant effect on the mind of mother or upon the child.

9. In lessening the suffering, anæsthetics render a great service to those women who dread the pain; they diminish the chances of the nervous crisis which are caused during labor by the excess of suffering; they make the recovery more rapid.

10. They are specially useful to calm the great agitation and cerebral excitement which labor often produces in very nervous women.

11. Their employment is indicated in natural cases until the pains are suspended or retarded by the suffering caused by maladies occurring previous to or during labor, and in those cases where irregular and partial contractions occasion internal and sometimes continuous pain, without causing progress of the labor.

12. In a natural labor, chloroform should never be used without the consent of the woman and her family.

M. Courty advocates the use of chloroform. He thinks it indicated when the pains are very great and irregular, or where the patient demands it.

M. Leblond prefers to use the hydrate of chloral. —*Gazette Medicale*, Oct. 20, 1877.—*Med. Record.*

Poisoning with Tobacco.—A singular case of narcotic poisoning in a child has been the subject of an inquest during the last week. A boy, aged three or four years, was playing with other children who were blowing soap-bnbbles. The father of the child gave him an old wooden pipe, which had been lying by on a shelf for more than a year. The deceased was quite well at the time, but, an hour after using this pipe, he became sick and drowsy. A medical man was called in, and he found the child labouring under the usual symptoms of narotic poisoning. He was in a comatose state, and the pupils were slightly dilated. He could be roused to answer questions, but showed no sign of rallying. He died on the fourth day after using the pipe.

The medical witness attributed death to the nicotine which the wooden pipe had imbibed and retained. The deceased while blowing soap-bubbles with it, had sucked in sufficient quantity of this powerful poison to cause the symptoms observed and to prove fatal.

There can be no doubt that a very small quantity of nicotine would suffice to destroy the life of a child of this age; but it is remarkable that the child should have survived so long. There was, however, no other cause for the symptoms and death; and it is well known that children of this tender age are highly susceptible to the effects of narcotic poisons.—*Brit. Med. Journal.*

Medical Legislation in Illinois.—The Illinois State Board of Health is now issuing licenses to the physicians of this State, according to the new law.

A. This new law gives all educated physicians the power to protect themselves and elevate the standard of the profession, which they never before had. In less than twelve months every County Clerk in Illinois will have recorded the license of all physicians practising in his county. Every new comer can be investigated, by any man choosing to ascertain if the former is registered, by inspecting the County Clerk's record. If he be registered, well and good; if not, the County Attorney, in obedience to instructions from the State Board, will prosecute the new comer, who must show that he is a graduate, or "move on." Thus the profession can keep out of Illinois all uneducated, ungraduated men.

B. After January 1st., prox., physicians, in collecting fees in courts, must show that THEY are law-abiding citizens, in that THEY have qualified by conforming to the laws of the State—in short, that they are licensed practitioners of medicine and surgery. Failing in this, they will suffer immensely in their suit and be greatly embarrassed.

C. All advertising specialists and travelling quacks can be suppressed, by licensed physicians entering complaint to the State Board against them, alleging that they are violating the "code," and the Board will at once recall licenses issued to those thus giving offence. As long as the earth stands there will be charlatans, and no law can be framed that will completely annihilate them. Quacks are such by NATURE. Doctors must always expect to be pestered by this sort of vermin. This new law places in our hands, *for the first time in our State history*, the possibility of dealing summarily with all forms of quackery. The "codes"

of all schools are agreed as to what is "professional conduct."

From the foregoing, it can be seen that if the profession throughout Illinois will cheerfully come forward and array themselves on the side of law and order, give their hearty and united moral support to this Board of Health, the standing of physicians will be greatly enhanced thereby, and they only will be the gainers. On the general principle of opposition to special legislation, the Colleges, so far as is known, were opposed to the bill, and the fact that eight separate medical bills were introduced in the legislature last winter, and but *one* (and an imperfect one) passed, shows that there was no endeavour on the part of Colleges to secure the enactment of this law.—(*Chicago Medical Journal.*)

BUISSON'S CURE FOR HYDROPHOBIA.—M. Buisson, of Paris, was inoculated by hydrophobia virus while attending a patient who was affected. He felt all the symptoms of the disease, constriction of the pharyngeal muscles, &c. He entered a Russian vapour bath, 107° Fah., resolving to terminate his life by suicide. To his astonishment the symptoms gradually vanished, and he in time completely recovered. Since then he has treated eighty cases successfully. His mode of treatment is this: The person bitten should take a certain number of baths, and every night should induce a violent perspiration by wrapping in flannels and lying under a feather bed, and by drinking freely of warm decoction of sarsaparilla. So convinced is he of this mode of treatment proving successful that he will suffer himself to be inoculated with the virus. Dancing is also recommended to produce sweating. Animals which do not perspire—as dogs, wolves, and foxes—are most frequently affected with hydrophobia. Dancing was an old remedy for the cure of tarantula stings.—(*The Lancet.*)

PHOSPHORUS IN LEUCOCYTHÆMIA AND ALLIED DISEASES.—(*British Medical Journal*, Dec. 2nd and 16th, 1876.)—The Clinical Society, of London, in its meetings of Nov. 24th and Dec. 8th, 1876, listened to several papers and an animated discussion upon the above subject. The facts, that in this disease the glandular system is irregularly involved, in some cases the glands generally being affected, while in others only the spleen is enlarged, the striking variations in different patients in the increase of the white corpuscles and the decrease of the red, the accumulation of the white in the spleen and the marrow of the bones, led Dr. Broadbent to consider that the essence of the disease lay in the altered relationships of the blood and the tissues or the blood and the glands.

Taking into consideration the rapid degeneration which takes place in all the tissues under the influence of phosphorus, he concluded that perhaps the glandular enlargements might be diminished by the careful administration of this substance. Several cases had been reported by him, in one of which the improvement was so remarkable that the patient had fully regained her strength, while in the others the success was far less satisfactory.

Dr. Gowers related one case in which a favorable change took place for a time, but the patient eventually died.

Dr. Greenfield spoke of another in which the symptoms became worse under the phosphorus.

Dr. Goodheart communicated the details of one case in which the general health improved, but the glands remained unchanged. The patient was still living.

Sir William Jenner sent notes of three cases, in the first of which, after four months treatment, no benefit could be observed, in the second, the symptoms were aggravated, and in the third, after two months treatment, the patient died.

Dr. Moxon's experience was of the worst, as out of thirty cases he could not report one in which benefit appeared after the use of this remedy.

From these details it is apparent that the good expectations raised by the capital results of the phosphorus treatment in Dr. Broadbent's first case can now scarcely be held, although future results may be modified by employing the medicament in some particular way as yet untried. Up to this time it has usually been given in capsules, in doses of gr. 1-30, thrice daily, as in the pill form it was perfectly useless, since the pills passed from the body unchanged.

Its action upon the kidneys must also be taken into consideration, for in many cases a marked fatty degeneration had already taken place at the time of death. The grand difficulty in the disease is our want of pathological knowledge of its nature and until such is obtained our chance for a rational and successful treatment is only problematical. —(*Detroit Medical Journal.*)

CROTON-CHLORAL AND ITS USE.—It is of greatest service in neuralgia of the fifth nerve, and in many cases appears to act as a specific.

2. Its effects and benefit are most favorable in the neuralgias of comparatively young patients, especially in the headaches of anæmic women or or girls, in which class cure or relief was obtained in 86 per cent. of the treated cases. About the climacteric period success was obtained in only 50 per cent., while in later life the favorable results again rose to 60 per cent.

3. At the climacteric period bromide of potassium seems to be more reliable.

4. Headaches in patients with marked hysterical symptoms are rarely benefitted; the presence of hysteria always makes the success of the drug very doubtful.

5. In hospital out-patient practice he prescribes five grains thrice daily in half a drachm of glycerine and water, and if not sufficient to produce effects, four times daily. Elsewhere he gives the same dose every two, three or four hours, according to the urgency of the case.

6, There does not seem to be much danger in large doses of croton-chloral. Dr. Ringer has given it to a patient in five grain does every hour for a fortnight, and Dr. Liebreich a sleeping draught containg a drachm and a half of the remedy.

7. Usually no unpleasant effects are observed after ordinary doses, though giddiness, headache, and vomiting have occurred in a few cases. If taken immediately after meals, emesis will usually cease.—(*Medical and Surgical Reporter.*)

A New Material for Dilatation of the Cervix Uteri.—(*Med. Record*, July 14th, 1877.) Dr. Sussdorff, after an experience of two years in the use of tents made of the root of the Tupelo tree, heartily recommends them to the profession as being far superior to sea-tangle or sponge. The tree is a species of Nyssa indigenous to the United States, and of the five different kinds the Nyssa Aquatica is to be selected for making the best tents. It is a Southern species and grows in swamps and wet places of Georgia and Florida. The roots are the parts used, and though very heavy when first dug up, after being cut into smaller pieces and exposed to dry heat they become dry and light as cork. Messrs. Tiemann & Co. of New York, now prepare them compressed to a graduated scale. The advantages claimed for these tents are, that: 1. They are easily introduced, being smooth and firm. 2. They will not easily fall out of place as they are very light and soon absorb moisture sufficient to retain their place. 3. They are probably of an antiseptic nature themselves, as they do not decompose the fluids with which they are in contact; have none of the offensiveness always accompanying the sponge or sea-tangle, and being purely vegetable, are not likely to produce septic poisoning or local irritation. 4. The rapidity with which they will expand when in contact with the tissues and secretions of the uterus is perhaps one of their chief advantages. This rapidity can be controlled by selecting tents compressed to different degrees; thus one compressed to one-fourth of its original size, would not dilate so quickly as one reduced to one-tenth of the same.—(*Detroit Medical Journal.*)

Hydatid Tumor of the Kidney Successfully Treated by Aspiration.—Bradbury. (*British Med. Journal*, 1877, Oct. 6.) A boy, aged 8, was admitted into the hospital on July 5th, 1876. His only complaint was of an enlarged abdomen. A large tense elastic swelling occupied almost the whole of the left half of the abdomen, which was absolutely dull on percussion.

Superiorly the percussion-dullness extended to within one inch and a half of the nipple in the nipple-line, and tracing it to the right, it became separated from the liver-dullness (right lobe) by a band of well-marked resonance. It then passed down, about one inch and a half to two inches to the right of the mesial line and lost itself below in the dullness of the (full) bladder. On tracing it to the left, the dullness reached as high as the left rib in the axillary line, but at this level it did not quite extend to the spine. The whole of the left hypochondrium was filled with the tumor, and there was complete dullness down to Poupart's ligament. The percussion was tympanitic over the rest of the abdomen. At the upper part of the tumor the "repercussion thrill" could be obtained. The heart's apex beat immediately beneath the nipple, just under the fourth rib; heart and lung sounds, urine and liver were normal.

On July 6th, the needle of an aspirator was introduced into the tumor, and forty-four ounces of hydatid fluid were drawn off. No hooklets were found in it. After the operation the boy vomited several times, had slight fever, and an eruption of urticaria; but no tenderness of the abdomen. The urine was found to contain albumen, due to the presence of pus. July 15th, the abdomen was enlarging again. When the boy was made to sit up in bed he complained of pain in the loins, and four of the lumber spines were found to be prominent, and the skin over them reddened. They were very painful on pressure. The tumor was aspirated again, and thirty-one and a half ounces of a greenish opalescent fluid were withdrawn, which in the latter stage of the operation, was flaky and apparently purulent. After standing, the fluid deposited two ounces of pus. Under the microscope, pus-cells and the heads of numerous echinococci armed with hooklets were detected. The boy vomited again several times after the operation, but no urticaria followed the second puncture. On July 25th and 26th small cysts with hooklets were found in the urinary sediment. From this time the patient became gradually better. In November he was discharged from the hospital and under observation for some months. When last seen, he was quite well, the abdomen being perfectly normal and the urine free from pus and albumen.—(*Chicago Medical Journal.*)

Open Air Treatment of Phthisis.—Our object should be to find for our patients the climate so mild that their lives may be passed in open air.

In the Hawaiian Islands we have such a climate, which, in its average temperature and in equability, may be said to be perfect; where consumptives can literally live in the open air without fear of those

sudden changes so objectionable in nearly all the noted "retreats" for invalids.

These islands are situated between degrees 19 and 22 north latitude, in the region of the trade winds, which blow with great regularity about ten months of the year. Although lying within the tropics, where the heat might be expected to be oppressive and debilitating, the temperature is so modified by the constant fresh breezes coming over the wide expanse of the ocean, that it does not appear to be so great as the thermometer indicates.

Says the historian, Jarves: "The climate is everywhere salubrious, and possesses a remarkable evenness of temperature, so much so that the language has no word to express the general idea of weather. Physiologists give a certain point of temperature as most conductive to health and longevity. The mean heat of these islands approaches near to it, and is highly favorable to the full development and perfection of the animal economy." Again, when speaking of certain localities as favorable for consumptives, he says: "Many individuals by change of residence, have prolonged their lives for years, and others live with scarcely an admonition of their disease, who, in less favoured regions of the North, were perpetual sufferers."

The most favorable situations for such patients are Honolulu, on the Island of Oahu, Lahaina and Ulepaleku on Maui, Kailua on Hawaii, and Ewa on Kauai, as these places have the best temperatures for constant out-door life, and afford comfortable residences for invalids.

The mean temperature on or near the coast of all the islands is 75°, with but little difference between summer and winter—it being 79° for the warmest months and 72° for the coldest, showing a difference in mean temperature of but 7°.

During an observation of twelve years at Honolulu, the maximum of heat was 90°, and the minimum 53°, a difference through that long period of but 37°

At Lahaina, during an observation of ten years, the highest register of the thermometer was 86°, and the lowest 54°, a difference in one decade of only 32°.

But a range so great as that is very unusual. During my residence at Lahaina of four years, the maximum was 84°, and the minimum 61°, while the general average for the summer months was 82° at mid-day, and about 72° for the winter months.—*Dr. White, Kings Co. Med. Society Proceedings.*

NEW METHOD OF REDUCING DISLOCATIONS OF THE SHOULDER (*New York Medical Journal*, October, 1877).—Dr. Kuhn describes a new method of reducing dislocations of the shoulder. He calls attention to the fact that there is a loss of force, due to the scapula following the traction made on the humerus, in the method ordinarily employed to reduce luxations of the shoulder-joint. He claims, on the contrary, that by making the humerus the fixed point, and reducing the scapula, there is no loss of power, and the resistance of those powerful muscles, the pectoralis major and latissimus dorsi, is obviated. With a passing reference to anæsthetics and to the prejudice which some practitioners entertain against their use, he proceeds to the *modus operandi*. A wedge-shaped cushion is placed in the axilla, the base of the wedge being downward; the surgeon, standing at the patient's side, lightly draws the arm downward, and at the same time firmly presses it firmly against the pad in the axilla, so as to make it into a lever of the first kind; then, taking the inferior angle of the scapula in the other hand, he raises that bone and gives it a seesaw motion. Coaptation soon follows, the two parts returning to their natural position by a simultaneous effort made on the lower extremity of the humerus and the inferior angle of the scapula. If the head of the humerus be displaced forward, the angle of the scapula should be directed outward at the same time that it is raised. It should be directed inward if the dislocation be backward. If any difficulty be experienced in making the reduction, the task of holding and directing the arm should be confined to an assistant.—*Med. Times.*

THE DOCTOR'S APPEAL AGAINST THE INCOME TAX.

The following lines were written by a country surgeon, in 1842, claiming exemption from the income tax. The author himself recited them when appealing. We believe that this is the first time the lines have been published.

I'm sorry to make so sad a confession
Of the profits that emanate from my profession,
But the fact is, that most of the villages round
With surgeons, quack doctors, and druggists abound,
So much so, that I am unable to clear
The sum of one hundred and fifty a year.
It would give me much pleasure could I return double,
And save myself all this additional trouble.
But opponents and bad debts beyond all redemption
Compel me to fill out this claim of exemption.
And what makes the matter so very much worse,
I've a wife, and three children, and no private purse.
So from these simple facts the collector must see
He can gather no tax upon income from me.

—*Student's Journal and Hospital Gazette.*

COLONIAL MEDICAL DEGREES.—Some time since the General Medical Council passed a resolution recommending that medical men possessing certain colonial diplomas and degrees, should be placed upon the *Medical Register*. This, however, can only be done by an amendment of the Medical Act. Most of the Canadian Colleges which confer medical degrees, and those also

established at Barbadoes, Tasmania, New Zealand, and South Australia, will be favourably affected if the resolution be carried out.—*Hospital Gazette*, London.

MALIGNANT ACUTE RHEUMATISM.—D. Julius Pollock, Senior Physician to Charing Cross Hospital, London, says, in a recent lecture in the *Lancet*:—Every now and then, fortunately not often, rheumatic fever assumes a form for which I think the term "malignant" is most appropiate. In such cases, without any apparent reason, the temperature begins to rise, and may ultimately attain the height of 110° Fahr., or even more; the joint affection subsides, pain is no longer complained of, and the patient often expresses himself as better, just as the most serious symptoms are coming on. The profuse sweating ceases, the skin becomes dry, harsh, and intensely hot to the touch; very frequently a crop of sudamina breaks out upon the neck, chest, and abdomen (a very favorable sign); the tongue becomes dry and brown, there is great thirst, complete anorexia, the breathing is rapid, and the pulse very quick and generally weak; the patient is tremulous and restless, with a suffused and "ferrety" appearance look about the eyes. Low muttering deliuium is generally present, though occasionally there is some excitement, and unless the disease takes a favorable turn, or relief can speedily be given, death ensues in a day or two, apparently from mere hyperpyrexia. Post-mortem examination gives us no clue to the cause of the excess of fever. In the cases I have examined there has been no pericarditis, though, I dare say, it is occasionally present. Certainly its existence is not essential to the hyperpyxia. The lungs are dark and congested, the liver and spleen friable and easily broken down, the blood is tarry and fluid, but the muscles are remarkable for their bright red color; the kidneys are unaffected. The odor of such cases, even when recently examined, is generally most offensive.

I am aware that this state of high temperature is not peculiar to rheumatic fever; that it occurs in continued fevers, in diseases of the brain and spinal cord, in pneumonia and other disorders; but it is in acute rheumatism that it has attracted most attention, and is most frequently encountered. It is not only the more severe attacks of the disease that drift into perpyrexia; comparatively mild and subacute cases, which appear to be doing well, will now and then take this remarkable course.

I use the term "malignant" for this condition, in the same sense that it is used for those terrible cases of small-pox, scarlet fever, or cholera, in which the chief force of the disease seems to fall upon the nervous system, overwhelming the patient before any distinctive symptoms are manifested, and because, from my own experience, and that of others, I have come to the conclusion that, in the present state of our knowledge, the greater number of such cases die, in whatever way they may be treated. Indeed, I think it is doubtful, in those that do recover, how much the remedies had to do with the result; and Dr. Cavafy has recently recorded the case of high temperature in acute rheumatism that got well under the influence of food and stimulants only.—*Med. & Surg. Reporter.*

LOCAL TREATMENT OF DYSENTERY.—Dr. H. C. Wood, in the *Philadelphia Medical Times*, speaks of the "rational" treatment of dysentery as the application to the mucous membrane involved of a solution of nitrate of silver. From the value of this salt in sore throat he thinks it should be equally useful at the other end of the intestinal tube. Regarding dysentery simply as colitis, by means of a long tube carefully passed 8 to 12 grains into the rectum, he introduces about 3 pints of liquor containing 40 to 61 grains from a reservoir above. It can flow in gradually by gravity, and must be about the temperature of the body. If too hot or cold, peristalis is too easily provoked. If not returned in ten minutes, a solution of salt could be injected. He has tried it in one case of dysentery, and in several of diarrœa.—*The Doctor.*

SULPHATE OF CINCHONIDIA AS AN ANTIPERIODIC.—Dr. H. L. Warren, of Illinois, writing to the *Chicago Medical Journal and Examiner*, says: "I have recently noticed two or three articles with reference to substituting sulphate of cinchonidia for sulphate of quinia, the writers claiming that the cheaper drug fulfilled every indication met by quinine. I know that many physicians are not aware of this fact, and wish to add my testimony to that already given. I find that in malarial fevers of whatever type, the cinchonidia salt has proved just as certainly a specific as the salt of quinia. Having had a large number of cases of this class treated almost entirely by the drug in question, I have learned to place just as much confidence in it as I have had in quinine, and with equal confidence predict a favourable result. It has not failed in a single instance to prevent to prevent the next paroxysm in a tertian, and the next but one, sometimes the next, in a quotidian ague, and is equally efficacious in remittent fever, being well borne by the stomach, and not producing any of the unpleasant head-symptoms which so certainly follow large doses of quinine. I administer it in five-grain doses, either in pill or powder, as the patient desires, every four hours, day and night, without any reference to paroxysm, intermission, remission, or exacerbation, until the patient has passed safely through the "chill day" in a tertian ague, and through two days without chills in quotidian; then continue in smaller doses, say two grains after or before each meal. Considering the fact that qui-

nine is sold at nearly four dollars per ounce and sulphate of cinchonidia at only eighty cents, every physician should be acquainted with the above facts. It will be seen that it only requires about a drachm (or ten cents' worth) of the drug to completely control the disease."

In the *Louisville Medical News* of November 24th, Dr. A. G. Hobbs, writing on the same subject says: In malarious districts, such as in Southern Indiana, cinchonidia is the country practitioner's greatest boon. The difference in its cost as compared with quinine—one-fourth—is no small item to him who has his two or three ounces to buy. During the last three months I have used cinchonidia almost exclusive of quinia in nearly three hundred cases of chills, intermittent, remittent, and bilious fevers, and out of the whole number have been compelled to resort to arsenic in but five cases of chills. My experience in these three hundred cases of malarious fever is as follows:

1. I think it fully equal to quinine as an antiperiodic. Have never used it as an antipyretic as in typhoid fever, pneumonia, etc.; but if I ever find it necessary I shall not hesitate to risk it as such.

2. It produces no tinnitus aurium; at least, I have never been able to discover it in the size doses that I give it to stop malarious attacks.

3. The stomach undoubtedly tolerates it better than quinine.

4. I find it, so far as I can observe, fully equal to quinine as a tonic in combination with iron.

I administer it in doses same as quinine by bulk, which is about one-third greater by weight.—*New Remedies.*

VALUE OF RESPECTABLE PROFESSIONAL STANDING.—In a recent trial in New York city a medical gentleman, "who openly boasted that he did not care to become a member of any medical society, was severely handled by the attorney of the opposite side, who made it appear to the jury that the gentleman in question was not regular, and that his testimony should be taken with the allowance given to all suspicious witnesses. The result was what might have been anticipated. There is no argument, even in a court of law, against respectable connection and high standing in the profession; while a suspicion of the contrary is always a handle for an adversary; the moral of all of which is that it is safer to be respectable, even if it does incur the necessity of belonging to some recognized medical organization."

SALICYLATES IN DIABETES.—Dr. Muller Warnech, of Kiel (*Berlin. Klin. Wochensch.*), has tried the salicylate of soda in two cases of diabetes mellitus, and finds:—1. That it removes the symptoms, though not always permanently. 2. The symptoms disappear the more rapidly the larger the dose. 3. In moderate doses (9 or 10 grammes daily), its influence soon becomes exhausted, but larger daily doses (14 to 16 grammes), exert an increasing effect on the diabetes, 4. Salicylate of soda can be used without disturbance of the general health for a long time in diabetes. Any symptoms of poisoning at once disappear on stopping the medicine for a time. 5. Salicylate of soda has only a slight irritating effect, even if given for a long time, on the kidneys. Ebstein, of Gottingen, used it in diabetes in 1876, with great benefit.—*The Doctor.*

NIGHT MEDICAL SERVICE.—The night medical service, whose organization in Paris we noted some months since, is working well. It will be remembered that the police authorities guaranteed the moderate fees agreed upon. It is stated that during 1876 the defaulting payments have amounted to less than two hundred dollars.—*Med. Times.*

Reports of Societies.

MICHIGAN STATE BOARD OF HEALTH.—The regular quarterly meeting of the Michigan State Board of Health was held in Lansing on the 9th of Oct. Dr. Kedzie, Committee on Poisons, etc., read an important report on "Labeling Medicine." He gave many instances of poisoning by taking the wrong medicine through mistake because it was not labeled. He urged that every medicine, and every injurious substance which may be mistaken for medicine, should be distinctly labeled, "Never administer as medicine any substance of the composition of which you are ignorant or in doubt." The paper was accepted with thanks, and a committee, of which Dr. Kedzie is chairman, was appointed to investigate another branch of the subject in reference to danger from the dispensing of drugs or medicines by unqualified or inexperienced persons. This committee is to confer with the Michigan pharmaceutical association, which has already given attention to the subject.

Dr. Baker presented tables, diagrams, etc., on the subject of the death rate as relative to age, climate, etc.

Leroy Parker, chairman of the committee on legislation, made a brief report relative to the subjects of boards of health in cities and villages, and mentioned that since the last meeting considerable progress had been made in securing health officers for such boards. The secretary stated that the progress in this direction had been great, and it was largely due to Mr. Parker's efforts.

Dr. H. F. Lyster read a continuation of his paper heretofore presented on the subject of "Healthy Homes." He considered the subject mainly with reference to their location and the measures to be taken to secure good drainage, and traced much of the ill health of people to dampness in and about their dwellings. He had issued a circular to the correspondents of the board, and with this paper he presented the substance of about 40 replies received, showing the nature of the soil, practice as to tile-draining, sources of drinking water, character of cellars, disposition of decomposing organic matter, etc., about the homes in the several localities. He recommended that wherever the soil is not dry there should be tile-drains around the house or under the cellar.

In the discussion which followed, Dr. Baker deemed it important that such drains should never communicate uninteruptedly with a sewer, which may contain sewer gas which will thus permeate the house; but the connection should be through an open-air space or otherwise freely ventilated, on the house side of the trap.

Dr. Kedzie said that if box drains be used they should be placed with one corner down, so as to be self-cleansing.

Dr. Kedzie read a paper on persistence in efforts to "Resuscitate the Drowned." He reported a large number of cases where persons had been resuscitated a long time after they had apparently ceased to live. He claimed that deaths are constantly occurring for lack of thorough efforts at resuscitation, and that whenever such efforts are made they should be continued at least two hours. He cited one instance where only after six hours of constant work did symptoms of life appear, and yet this person was completely restored.

The secretary read an outline of a report of the work of his office during the last quarter. It included the distribution of about five thousand copies of the document on "Restriction and Prevention of Scarlet Fever," and sixteen hundred copies of the Fourth Annual Report of the Board; the printing of six thousand copies of the document on the "Treatment of the Drowned." Much time had been given to the compilation of "Weekly Reports of Diseases," and a large amount of miscellaneous correspondence and other business transacted.

Hon. Leroy Parker read an abstract of papers read before the public health section of the American social association at Saratoga, which he had attended in the interests of public health in Michigan.

Dr. Hitchcock presented a report and abstract of papers read at the recent meeting of the American public health association at Chicago.

At the last meeting ex-president Hitchcock presented an address by title, and at this meeting it was read. The subject was: "Heredity in its relations to the public health, and to legislation in the interests of public health."

A valuable paper on the diet of infants, by Dr. Arthur Hazlewood, of Grand Rapids, an ex-member of the Board, was accepted with thanks.

The secretary read communications from Dr. G. W. Topping of DeWitt, relative to reports of prevailing diseases; from Dr. O. Marshall of this city, on the subject of opium-eating; from Dr. Edward Dorsch of Monroe, on lead-poisoning from tin cooking utensils lined or glazed with lead; from Dr. C. W. Marvin of Ithaca, relative to the recent increase of deaths from cancer; from Dr. J. D. Hull of Allegan County, relative to drainage in his locality; from Dr. Batwell of Ypsilanti, relative to sickness from damming the Hudson river; from Dr. Charles H. Fisher of Rhode Island, giving formula for preparation and an account of the first use of sulpho-carbolate of soda as a preventive in scarlet fever.

Dr. Lyster presented a paper on baths and bathing. He gave a history and description of all kinds of baths and their effects on the human body. His paper was also accompanied by numerous replies on this subject from correspondents of the board to a circular which he had issued.

Brant County Medical Association.

The above Association convened at the Kerby House, Brantford, on Tuesday Dec. 4th. Members present were Drs. Philip, Burt, Griffin, Kitchen, Marquis, Harris, Sinclair and Healy. Steps were taken towards forming a Divisional Assosociation, embracing "Erie and Niagara district." A paper was read by Dr. Griffin on Rectal Abscess, and one by Dr. Healy on Chorea. Dr. Philip showed a case from his practice, and Dr. Burt a pathological specimen. Drs. Marquis and Sinclair were each requested to give papers at the next regular meeting.

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science

Issued Promptly on the First of each Month.

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.*

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; J. M. BALDWIN, 805 Broadway, New York, and BALLIERE, TINDALL & COX, 20 King William street, Strand, London, England.

TORONTO, JAN. 1, 1878.

THE PAST YEAR.

Another year has come and gone, and another leaf has been added to the history of medicine in the nineteenth century. The retrospect is an interesting one, and although nothing very startling in the domain of medicine has to be recorded, yet the rapid and steady progress which is being made in all departments is very gratifying, and we may be pardoned if we refer with pride to the great advances which are being made in our noble profession. As time rolls on we find ourselves at each recurring year, a long way in advance of what we were at the close of the last. The departments of medicine, surgery, obstetrics, therapeutics and pharmacy have been almost completely revolutionized within a few years past, and yet much remains to be done. Preventive medicine too, has had a large share of attention, and has given birth to a literature specially its own. This branch of the science of medicine is every year enlarging its scope and extending its usefulness, and will force itself upon the notice of the Legislatures of every civilized country. Sooner or later will be established "State Boards of public Health" by every nation, and government, and measures adopted for the promotion of health and the lessening of preventible diseases. These things are all in the near future, and the sooner a wise foresight on the part of our statesmen leads them to consider these matters aright, the more creditable will it be to their wisdom.

The world's Medical Congress met the past year at Geneva, and remained in session four days. It was announced that several well known physicians were to have taken part in the proceedings, but the reports of the meeting which have reached us, have been very meagre regarding the success of the meeting. In the field of Medicine and Therapeutics much progress has been made during the year. Further and more extended experiments have been made regarding the action of salicylic acid in rheumatism, and as an antipyretic in fevers, and with gratifying results. The influence of this medicine in lowering the fever heat and diminishing the excited pulse, is as marked as its power to relieve pain. In cases of typhoid fever with high temperature, its use has been attended with very beneficial results in diminishing the excessive fever heat. It is generally combined for administration with soda, and glycerine or syrup of lemons. Only in a few cases have any unpleasant effects been observed from its use. A new preparation of this remedy has been lately manufactured by Messrs. Evans & Co., of Montreal, viz., granulated effervescent salicylic acid, and effervescent salicylate of soda. These preparations are very elegant in appearance, and palatable to the taste as compared with the crude drug, and will, no doubt, come into general use. A new and simple treatment for burns and scalds has lately been brought under the notice of the profession by Dr. Waters, of Boston. It consists in the immediate application of bicarbonate of soda to the scalded surface, which almost instantly relieves the pain and promotes the healing process. The soda is dusted over the burned parts, and a wet cloth applied and retained—a single application being generally all that is necessary. In the treatment of epilepsy, bromide of arsenic has been used with varying results. It was recommended by Dr. Clemens, of Frankfort, who has used it in his practice for several years with most gratifying results. In some cases in which it was tried by other observers it proved serviceable in checking the fits for a time at least, and greatly diminishing their frequency in others. It may be administered in the form of bromide of potassium and liquor arsenicalis, or prepared by adding one and a half drachms of pure bromine to eight ounces of Fowler's solution, and given in from two to four minim doses.

The treatment of diphtheria has come in for a more than ordinary share of attention during the past year. This interest was heightened by the fact that this disease has prevailed pretty extensively in different parts of Canada during the year. The use of sulpho-carbolate of soda has, in the hands of some, proved of great benefit in the treat-

ment of this disease, while others claim to have better success in the use of chlorine water. Others again trust to quinine and iron internally, and local applications of sulphate of iron and carbolic acid as a wash to the throat, or chlorate of potash and tincture of iron. Two cases of ascites successfully treated by injection of iodine, were reported by Dr Ford, of Norwood. This plan of treatment is not wholly new to the profession, but is deserving of a passing notice. It has been used with success in some cases of ovarian cysts.

Hypodermic medication has also received increased attention during the past year, and among the agents used hypodermically chloroform may be mentioned. Some cases of inveterate sciation which had resisted all the usual remedies were relieved by deep injections of from 20 to 40 drops of chloroform in the buttock near the sciatic nerve. In some instances a single injection sufficed to produce a cure. Its use was occasionally followed by temporary anæsthesia of the leg, but no other unpleasant effects were observed. It was tried in one or two cases in the Toronto General Hospital with partial benefit to the patient. Ergot or ergotine has been used extensively in uterine fibroids, hemoptysis, hematemesis, enlarged spleen, and in purpura hæmorrhagica, with most favourable results; also ammonia in collapse, and woorara in tetanus. A report of fifteen cases of of tetanus treated by hypodermic injections of woorara is given in *Schmidt's Jahrbucher;* of these two cases of rheumatic tetanus and seven out of thirteen cases of traumatic tetanus recovered.

The use of galvanism has been largely extended. It has been applied to the treatment of ovarian cysts, hydrocele, tumors and nævi. In the *Weiner Med. Presse* three cases of ovarian cysts were reported cured by galvano-puncture after a treatment of from two to six weeks; no unpleasant consequences ensued and none of the cysts refilled. Dr. Cutter, of Cambridge, Mass., also reports three cases in which he employed it; but says its use is not unattended with danger, and great care must be exercised in regard to the needles, which should be insulated. Hydrocele has also been rapidly and permanently cured by the introduction of the needles into the sac, and Dr. Beard, of New York reports four cases of nævus successfully removed by electrolysis.

Among some of the advances in surgery may be mentioned the suspension of the body and the application of the plaster-of-Paris jacket in curvature of the spine. This treatment was introduced by Professor Sayre of New York and has been tried in a large number of cases with satisfactory results. Dr. Sayre has been in England during the past summer, and has had abundant opportunity for demonstrating his method of treating diseases of the spine. He was everywhere cordially received, and large numbers attended his lectures and witnessed his demonstrations. His method of treatment received the endorsation of the surgical section of the British Medical Association. Esmarch's bandage still continues to be used in certain cases, though not so generally as formerly. It has lost favor in amputation, owing to frequent excessive capillary hemorrhage after its use. Its value has been further tested in the treatment of aneurism. A case of popliteal aneurism is reported in the LANCET as having been cured by the application of Esmarch's bandage for fifty minutes. The treatment of acute orchitis by puncturing the testicle, attracted considerable attention. In cases in which it has been tried, it afforded immediate relief to the pain and diminution of the hardness. It is done by means of a grooved needle which is thrust into the testicle, and a little serous fluid allowed to escape. The relief is instantaneous and permanent. Three cases of extirpation of the rectum for epithelioma are recorded during the year; one each by Drs. Briddon and Wood of New York, and one by Dr. Agnew of Philadelphia. One patient recovered and two died. The diseased part is removed by making an incision around the anus, dissecting away the diseased rectum and afterwards bringing the bowel down and stitching it to the integument. Another operation for the removal of the spleen has been performed by Billroth, but the patient died from hemorrhage in four hours afterwards. A successful case of removal of the kidney from a child two years of age, by Dr. Jessop of Leeds, has been reported in the LANCET. The child was doing well at last reports. A new treatment for the cure of piles has been successfully employed during the past year. It consists in puncturing them with the actual cautery after they have been drawn well down. They are then returned and morphia administered for four or five days, after which an injection or laxative is used. The scars heal rapidly, and the patients

are cured in a week or ten days. Another case of gastrotomy is also reported by Dr. Lannelongue, of Bordeaux, for stricture of the œsophagus. The patient lived 26 days and was fed by the stomach, but died of pulmonary trouble. The operation was performed after the manner of Verneuil, by stitching the stomach to the abdominal walls before the opening is made. Dr. Foulis, of Glasgow, reports the 11th case of removal of the larynx in the living subject. At last accounts the patient was doing well, and was about having a Gussenbauer's voice apparatus applied. Of the 10 cases operated on during the past few years, only one case—that of Bottini—was known to have been alive 6 months after the operation. Billroth has operated twice, Maas twice, Heine, Schmidt, Schœnborn, Bottini, Langenbeck and Kosinski each once. The treatment of compound fractures by sealing them with compound tincture of benzoin, has been attended with marked success in Guy's Hospital. In fourteen cases so treated the results obtained were almost uniformly satisfactory. The open treatment of stump, and other wounds has been practiced both at home and abroad during the year. It is claimed that there is less liability to sloughing, pyæmia, and secondary hemorrhage, and that it secures perfect drainage. It is not likely however to come into general practice, but may be of advantage in certain cases. The operation of subcutaneous section of bone for the relief of certain deformities still meets with favor, and several operations have been performed during the year on both sides of the Atlantic. A new treatment for the cure of deafness has lately been introduced by Dr. Bonnafont. It consists in trephining the tympanum by means of a special trocar, the canula being left in for some weeks, until the opening in the tympanum is fully formed. Hearing was restored by this process.

The question of the use of antiseptics in surgery is still *sub judice*. The visit of Prof. Lister to America, in the summer of 1876, gave a fresh impetus to the use of this system, and for a time it was largely practised in the American hospitals and in private practice. Lister's method was used for the first time in a case of ovariotomy by Sims on the 23rd of Nov. 1876. The case did well, but it is a noteworthy fact that Lister himself does not believe his system applicable in ovariotomy. Its use occasions delay, and the evaporation of the spray has a cooling effect on the exposed parts which is most undesirable. In the field of obstetrics several new and improved methods of treatment in uterine affections have been introduced. The injection of hot water at a temperature of from 90 to 105°F. in uterine hemorrhages, may be mentioned as a new departure in obstetric practice. One of the advantages of this method, besides its prompt action, is that it does not produce any of the unpleasant sensations and after effects which follow the use of cold. Prof. Schoeder, of Berlin, gives the use of hot water injections his unqualified endorsation in cases of uterine hemorrhage. The application of ether spray to the abdomen and genitals, has also been practiced in several cases of uterine hemorrhage with successful results. Dr. Griffiths mentions two cases (Practitioner) in which it succeeded after all ordinary means had failed. A new material for dilating the os uteri has been introduced, which promises to displace the sponge and sea-tangle tents. It consists of the dried roots of the Tupelo tree, a species of Nyssa, indigenous to the United States. When dried, the roots shrink up and become light as cork; the fibre is fine grained, smooth, and absorbs water readily, the root swelling out to its original size. The removal of the uterus for disease, although a formidable operation, has now taken its proper place in obstetric surgery. Mr. Thornton *(Obstetrical Journal)* reports a successful case of removal of a fibroid uterus and ovaries. The patient was able to go out on the 27th day after the operation. In this case all the pedicles were tied with silk, and left free in the peritoneum. Dr. Noeggerath also removed the uterus for cancer of the fundus, but the patient died from shock 36 hours after the operation.

Among the most important new remedies which have been introduced during the past year may be mentioned, jaborandi, dialyzed iron, digestine, lactopeptine, vaseline, &c. Jaborandi has been highly extolled as a diaphoretic, and has succeeded where other remedies entirely failed. The dose is one drachm of the leaves infused in three ounces of water, or 15 to 30 mimims of the fluid extract. Dialyzed iron, formerly imported into this country, but now manufactured by Wyeth & Bro., Philadelphia, has special claims upon the attention of the profession. The points of superiority over the common preparations are that it is nearly tasteless,

does not interfere with digestion nor produce constipation. It is readily assimilated and has been successfully employed in all cases in which iron is indicated. It has also proved of great value as an antidote in cases of poisoning from arsenious acid. Lactopeptine is a most important preparation, lately introduced to the notice of the profession. It contains the active agents of digestion, and has been endorsed by the leading practitioners in the United States and Great Britain as a valuable remedy in those diseases of the stomach in which its use is indicated. Digestine is the active principle obtained from the gizzard of the fowl, and has been successfully used in the vomiting of pregnancy and as an aid to digestion. It is claimed to be much superior to pepsine, and invaluable in chronic vomiting not due to organic disease. Vaseline has lately acquired a special reputation as a dressing for burns and scalds. The unfortunate sufferers by the late accident in New York, had their burns dressed with this substance immediately on their admission to the Hospital.

Early in the year great dissatisfaction was felt at the action of the Imperial Board of Trade in excluding Canadian surgeons from serving on board the Allan steamers. After remonstrances from the Dominion Government, and the medical schools the obnoxious resolution was rescinded. The British Medical Council also took up the matter at its meeting and recommended that all holders of Colonial qualifications should be entitled to register in the United Kingdom, but in a seperate alphabetically arranged section of the register. The several meetings of the professional body politic in different parts of the world during the year were more than usually well represented. The American Medical Association met in Chicago in the month of June and was largely attended. Dr. Bowditch the president delivered the annual address, in which he dwelt among other things, upon the proposed amalgamation with the Canadian Medical Association. It was however decided to continue the system of delegates as at present. Drs. Hingston, Grant and Buck, were present as delegates from Canada, and were cordially received. The chief points of discussion at the meeting were concerning extirpation of the uterus, plaster of paris bandages in fractures, shortening in fracture of the thigh, and plaster of paris jacket in curvature of the spine. Dr. Kimball detailed 13 cases of extirpation of the uterus, 6 of which had been successful. Dr. Hamilton and others were opposed to plaster of paris in the treatment of fractures, and a resolution by Dr. Hingston was adopted, to the effect that shortening in fracture of the thigh was of frequent occurrence notwithstanding the judicious employment of the most approved means hitherto devised. Dr. Richardson of Louisiana was chosen president for the next year, and Buffalo was named as the next place of meeting, on the first Tuesday in June 1878. The meeting of the British Medical Association was also a very successful gathering. The annual address was delivered by Dr. Roberts on the "contagium vivum theory," in which he stated his belief, that bacteria were the active agents in decomposition, and that their source was from the air or water. Spencer Wells delivered the address in the surgical section, on "*Surgery past and present.*" Both the social and scientific aspects of the meeting were as usual, highly entertaining. The Canada Medical Association presided over by Dr. Hingston held its annual meeting in Montreal in September, and was, from a scientific point, the most successful ever held, nor was the social element in any degree lacking. Dr. Lyon Playfair, C. B. and Dr. Taylor of Edinburgh were present: also Drs. Kimball and Brodie, as delegates from the American Medical Association. The proceedings and papers have been published in the Transactions, and may be obtained by application to Dr. Osler, Montreal. Dr. Workman was chosen president, and the next meeting was appointed to take place in Hamilton on the second Wednesday of September 1878.

Many of our medical brethren in this country and in Great Britain, ever ready to alleviate suffering humanity in whatever form, have undertaken the uninviting task of giving surgical assistance to the wounded in the Turko-Russian war. They have not been very cordially received by the inhuman Turks, and have actually been forbidden in several instances to perform operations necessary to save the lives of the unfortunate soldiers. The English aid societies have actually to compel them to receive help for the sick and wounded. The supply of surgeons is totally inadequate, and there is room for many more who may feel disposed to undertake the duties.

In England the Penge case has been the subject of much discussion among the medical profession.

The case was terminated by the Home Secretary granting a free pardon to one of the convicts and commuting the sentence of the others to imprisonment for life, a memorial having been signed by upwards of seven hundred medical men to the effect that in their opinion the post mortem appearances of the body of Harriet Staunton were not such as to justify the conclusion that death was caused by "starvation or any other form of murder." The failure of the medical evidence in this case, has led to a consideration of the propriety of appointing medical men noted for their experience in observing post-mortem appearances, to be present at all cases in which death has taken place under suspicious circumstances.

Among matters of purely local interest may be mentioned the procuring from the Local Legislature of an Act of Incorporation for Trinity Medical School; its subsequent affiliation with Toronto University, Trinity University, and the University of Halifax; the illegal exclusion of the representative of this School by the Medical Council, and his re-instatement by legal process. In regard to the exclusion of Dr. Geikie, is should be stated in justice to a large and respectable minority of the Council, that they very much disapproved of the action of the majority.

The following books have been published during the year:—Ziemssen vols. vii. xi. xii. xv. and xvi; Burnett on the Ear; Durkee on Venereal Diseases; Skin Diseases by Duhring; Carpenter's Physiology; Dobell on Coughs, Consumption and Diet; Fothergill on Therapeutics; Reference Book by Dunglison; Loomis on Fevers; Biddle's Materia Medica, &c., &c.

Among those of our fraternity who have passed away, ripe in years and full of honors, we may mention Sir Wm. Ferguson and Somerville Scott Alison, of London; Cazenave of Paris; Drs. Gordon Buck, Martin Paine and Crosby, of New York; Paul F. Eve, of Nashville; Nathan R. Smith, of Baltimore; Sager, of Detroit, and many others. Among those of our brethren in Canada whose death it becomes our painful duty to chronicle are Drs. Hamilton, Dundas; Dewar, Port Hope; Landor, London; McColl, Wallacetown; Hostetter and Hornby, Toronto; Cline, Smith, Patton and Carpenter, Montreal; Padfield, Norwich; Moore, Amherst, N.S.; Johnston, Pictou, N.S.; Lewin, Lancaster, N.B.; Forest, St. Claire, Que; Beaubien and Germain, Ottawa; Henderson, Belleville; Betts, Kingston; Sparham, Kemptville; Aishton, Bath, &c., &c.

We conclude by wishing all our readers a happy new year, a long life of usefuluess, and many happy returns of the season.

POSTMORTEMS IN CRIMINAL CASES.

When writing on the Penge case last month, we overlooked the fact that Dr. Howard of Montreal, at the meeting of the Canada Medical Association last September, made a motion similar in substance to the suggestion contained in the close of our remarks, viz: "That it is in the interest of justice that when post mortem examinations are to be made, experts familiar with such scientific work, should be employed by the Crown when procurable." As we before said, there are such men to be found in the larger towns attached to the medical schools, engaged in teaching this branch of professional education, who for that reason enjoy exceptional facilities for familiarity with pathological appearances, and it would be well that coroners should have the power of calling in their assistance in all cases where inquiry is to be made into the causes of a death occurring under suspicious circumstances.

It has been suggested that an improvement in the existing way of performing post mortems might be effected by following the German practice of issuing definite rules to the coroners indicating the mode in which the work is to be done, what parts are to be examined, and the order in which the report is to be drawn up. This would doubtless act well in ensuring thorough examination, as the requiring of a report on the condition of each organ would prevent the possibility of a morbid condition in any one being overlooked, and so far it would be useful.

It is also gratifying to know that greater attention is being paid to pathological teaching in the medical schools in Canada than was formerly the case. Care is now being taken in instructing the classes in the performance of autopsies, and in directing their attention to the appearances of diseased organs, and the teachers in all the schools on this branch, we believe, utilize to the utmost the material at their command. This does not,

however, meet the fact that the majority of medical men are not called on more than once or twice, in the course of a long practice, to perform post-mortems in cases that are afterwards to be the subjects of judicial enquiry, and private post-mortems are almost equally rare. The whole time of the medical practitioner is taken up with the requirements of his practice, and he has, too often, but little leisure or inclination to keep up his acquaintance with pathological appearances where the difficulties of doing so are as great as they commonly are. However well grounded on the subject he may be at the outset of his professional career, as other subjects of greater immediate importance fill his mind, his ideas on this become more hazy and uncertain as time advances.

We hope that this subject will not be allowed to drop, but that, as the Penge case is almost certain to result in legislative action regarding the conduct of post-mortems in criminal cases in England, so we in Canada may take warning by it to remove as far as possible the element of doubt as to the cause of death in such cases, by appropriate legal enactment on our part, and we have already indicated the course we think such action should take.

SULPHATE OF CINCHONIDIA.

In view of the fact of the continued high price of quinine and the intrinsic value of sulphate of cinchonidia in itself, and as a substitute for quinine, we desire to call the attention of the profession in Canada to its valuable properties. Sulphate of cinchonidia is not a new remedy, but is one whose value is not as well known and recognized as its merits would entitle it to be. In fact it is only within the past few months that it has been more than casually brought under the notice of the profession. It has now had a fair and impartial trial, and the verdict has been almost unanimous in its favour. It is not too much to claim that it possesses tonic, febrifuge and anti-periodic properties, almost equal to quinine. It has been used with complete success to cut short intermittent fevers, to dispel the malarial complications that sometimes complicate pneumonia, and to lower the temperature in acute rheumatism. As a tonic it ranks equal with quinine, and as an anti-periodic in intermittent and remittent fevers it arrests the paroxysms with rapidity and certainty, and without producing any of those unpleasant effects on the sensorium which are the result of large doses, or the long continued use of quinine. The price of sulphate of cinchonidia, which is about one-third that of quinine, is of itself an item worthy of the serious consideration of the profession, especially when added to the fact that it is almost, if not entirely, equal in value as a remedial agent. This is a matter of considerable moment, especially to country practitioners, who have to supply their own medicines at great expense annually, not only to the wealthy but to the indigent from whom they never expect to receive a single farthing for their services or medicines. We would never advise the use of cheaper medicines from mere mercenary motives. No one could conscientiously do so, but when we find them equal in therapeutic value, and less expensive, we feel it our duty to recommend them. It has been asserted by some who have never given it a fair test, that it takes three times as much cinchonidia to produce the same effects as a given quantity of quinine. This is not true, as may be found by experiment. The majority of observers agree in the statement that the quantity used is slightly in excess of the quantity of quinine which would be required in any given case, and that neither the headache, ringing in the ears, sensation of fullness in the head, nor the suffusion of the eyes, is so great as when quinine is used. In a number of cases of intermittent fever, treated side by side with quinine and cinchonidia in the Louisville Hospital, the latter gave the most satisfactory results.

Sulphate of cinchonidia is a most beautiful preparation. We have a sample before us manufactured by Powers & Weightman of Philadelphia, which it would be difficult to distinguish from quinine. Some time ago the Madras Government appointed a commission to test the respective efficacy of the different alkaloids of cinchona in the treatment of malarial fevers. From this report it appeared that there were fewer failures from the use of cinchonine and cinchonidine than any other of the alkaloids, and the Government has officially advised the more free use in India of these alkaloids, and especially sulphate

of cinchonidia, which is procurable in abundance from red bark. Several practitioners both in this city and the surrounding country are now using the sulphate of cinchonidia instead of quinine, and all bear testimony to its reliability and efficacy in the treatment of all cases in which quinine was formerly used.

THE ONTARIO MEDICAL COUNCIL.

In another column will be seen a notice to the effect that the legal counsel, to whom the case was referred, have decided that Dr. Geikie is entitled to his seat as the legally elected representative of Trinity Medical School. The unwarranted and high-handed proceeding of the Council at its late meeting, which resulted in the illegal exclusion of Dr. Geikie, is probably without a parallel in the history of any similarly constituted body. It also shows more forcibly than anything else the corrupt state into which a corporate body may fall by reason of a prolonged term of office. The Council as at present constituted, is almost entirely in the hands of the schoolmen, the territorial representatives being completely overpowered. The schoolmen, with the aid of the homœopaths and eclectics can, and do, carry everything their own way.

We all know how persistently the Council set the well understood wishes of the profession at defiance in the matter of the constitution of the examining board, and in other matters. This would never have occurred and continued so long had it not been for the long term of office enjoyed under the five year clause—and the powerlessness of the territorial representatives, although several of the latter, notably Drs. Allison and Hyde fought valiantly in the interests of the profession. The only remedy is an increase of the territorial representatives, so as to give each division two members instead of one. The only possible objection to increased representation, is the increased expense which it would entail. This is, however, not so great an objection as would appear at first sight. The *five* eclectics, now representatives at large, cease after 1879, so that there would, in reality, be added only *seven* more than at present. There are about 1,500 medical men in the Province of Ontario, and these are represented in the Council by only 12 members, while the colleges and teaching bodies have eight, the homœopaths five, and the eclectics five. As the latter have merged in the general profession, we propose to give this representation to the general body—and by giving two members to each territorial division, we proportionately increase the representation, and will thereby bring the outside profession more in harmony with the Council. We have no doubt that certain members of the Council will oppose any reform in the direction indicated, as of course it would interfere with their little game—monopoly, but that is only the greater reason why the profession should take the matter into its own hands.

HYDROBROMIC ACID.—This new and popular remedy is now coming into extensive use as a substitute for bromide of potassium, combining all the qualities of that salt without any of its unpleasant effects. It is produced by the decomposition of bromide of potassium and tartaric acid. When given in combination with quinine (which readily dissolves in it) the tendency of the quinine to produce headache is entirely prevented. This is a valuable piece of information to practitioners having patients to whom the administration of quinine was impracticable for that reason, and this alone should recommend its use instead of the mineral acids as a solvent of quinine. Dr. Fothergill who appears to have devoted much time to its study, recommends its use in combination with quinine and digitalis in forms of excited action of the heart, connected with general nervous excitability or nervous exhaustion. He claims better results from the use of the acid than from bromide of potassium. It has been used with success in whooping cough and also in combination with other remedies in cough mixtures to allay troublesome coughs. In many other affections such as gastrodynia in combination with quinine it is useful, also to check the vomiting of pregnancy, and in hemorrhagia associated with excessive sexual excitement. The dose of the acid (as usually diluted) is from thirty to sixty minims, which we quote from the label of a specimen bottle sent us by Messrs. Kenneth Campbell & Co., of Montreal. The profession will not be slow to avail itself of the services of so valuable a drug.

CHRYSOPHANIC ACID IN PSORIASIS—Dr. Whipman of St. George's Hospital, London, Eng., (*Med.*

Times & Gazette), has been using chrysophanic acid recently with great success in the treatment of psoriasis. It is used in the proportion of half a drachm to the ounce of lard and applied as an ointment. This substance has succeeded after failure of various other remedies.

TRINITY MEDICAL SCHOOL REPRESENTATIVE IN THE MEDICAL COUNCIL.—After considerable delay and much vexatious opposition, the legal counsel on both sides have agreed that Dr. Geikie is the legal representative of Trinity Medical School and is entitled to his seat, and that the costs which have been incurred by reason of his illegal exclusion, shall be paid by the Medical Council. This is what comes of the attempt, on the part of a few interested individuals in the Council, to exclude the legally elected representative of the largest medical school in Ontario. An action for damages will now be in order.

DEATH FROM ETHER INHALATION.—Several cases of death from the inhalation of ether have occurred lately. Two cases are reported in the *Brit. Med. Journal* of recent dates. In one of these cases nitrous oxide gas was given with the ether, and in the other chloroform was first given and afterwards ether—to the extent of two ounces. Another case is reported in the *Med. Times & Gazette*, in which after ether had been given to complete anæsthesia and the operation about to be commenced, the patient became faint, and the breathing was suddenly arrested. All attempts at resuscitation were unsuccessful. A case is also reported in the *Va. Med. Monthly* somewhat similar to the foregoing, except that resuscitation from the primary effects of the ether took place and the operation was completed, but in a few minutes the patient vomited and immediately sank.

THE WARREN TRIENNIAL PRIZE.—The Warren prize committee, consisting of the visiting physicians and surgeons of the Massachusetts General Hospital, have awarded the prize of the present year, to E. O. Shakspeare, M.D., of Philadelphia, for an essay On the Healing of Arteries after Ligation. The committee also announce that the subject for 1880 will be Original Observations in Physiology, Surgery, and Pathological Anatomy. The object of the prize is to stimulate original researches. This is the second prize which has been given. Essays were sent in from distant parts of the country, and even from across the Atlantic. The next prize, amounting to $400, will be given for the best essay received on or before the 1st of February, 1880. Essays should be forwarded to the resident physician, Massachusetts General Hospital, Boston, on or before that date.

OVARIAN CYST COMPLICATED WITH PREGNANCY.—Dr. Erskine Mason reports (New York Pathological Society) a case of ovarian cyst and pregnancy combined, the latter condition not being diagnosed until the trocar was plunged into the uterus during the operation of ovaritomy. The wound in the uterus was immediately closed up by silver wire sutures. A large cyst was found in the left ovary, but was not removed. The wound in the abdomen was closed. The patient passed a restless night, and the following morning gave birth to two fœtuses of 5 or 6 months, after which she sank rapidly and died 18½ hours after the operation.

LARGE DOSES OF IPECAC. IN DYSENTERY.—Dr. Sprague of Stirling, Ont., writes in reference to an article on ipecac. in dysentery, in the September number of the LANCET. In 1873, during an epidemic of dysentery in Iowa, he treated over 15 or 20 cases with large doses of ipecac—giving generally to adults half a drachm, but before administering it he always gave 20 drops of laudanum and applied a mustard blister over the epigastrum. In many cases he noticed slight nausea, but no emesis;—he has tried the remedy mentioned in many cases since and has seen it prove equally successful when tried by other physicians. He says he has every reason to consider it a specific. It originated not with him to verify its efficacy, as Flint in his work alludes to it, and the U.S. Dispensatory highly endorses it, but unless it is used as above described it will disappoint many.

COMMUTATION RATES.—For the present year we will supply the CANADA LANCET with any of the following periodicals for the amount set after each respectively:—With Braithwaite's Retrospect, $5 New York Medical Journal, $6.00; Philadelphia Medical Times, $6.00; London Lancet Reprint, $6.50; Dominion Monthly, $4.00: Scribner's Monthly, $5.00; St. Nicholas, $4.50; Appleton's

Journal, $5.25; Popular Science Monthly, $6.75; Harper's Monthly, Weekly, or Bazaar, $6.25; Canadian Illustrated News, $6.00. Estimates for any other journals will be given if required. The amount of subscription *in advance*, must in all cases accompany the order.

SALICYLIC ACID IN ACUTE RHEUMATISM (*The Lancet*, October 13, 1877).—Dr. Whipham reports at length an extremely interesting case of acute rheumatism complicated by pericarditis and broncho-pneumonia, which was relieved at once, when the patient was apparently dying, by salicylate of sodium, after failure of a fair trial of the alkaline treatment. The remedy was given in twenty-grain doses every two or three hours.—*Med. Times*

DEATH FROM CHLOROFORM.—Another death from chloroform took place at Ancaster, Ont., a few weeks ago. The patient, an elderly lady, was about to undergo an operation for the removal of a tumor in the axilla. Only a small quantity of chloroform had been given when she suddenly died. Fatty degeneration of the heart was discovered at the *post-mortem*. The medical men were fully exonerated from any reflection.

NITRIC ACID IN HOARSENESS.—A few drops of this acid in a little syrup of tolu and water is an excellent remedy for the sore throat and huskiness of voice in public speakers and singers. A late physician of eminence was in the habit of prescribing the nitrate of ammonia in five grain doses in cough mixtures with surprising success.

ELEVATED POSITIONS AS HEALTH RESORTS.—The highest inhabited place on the globe is the Post House of Ancomarco in Peru, at nearly 16,000 feet above the level of the sea. This and other high levels, according to the authority of Herman Webster, are particularly favourable to persons suffering from consumption, as Colorada and the mountains of Switzerland, where altitudes of from 7 to 14,000 feet can be attained; but the south slopes of a mountain or other elevated positions should be chosen.

ANNUAL ACCESSION TO THE PROFESSION.—The medical schools of the United States of America turn out about 3000 graduates every year. Add to this the annual produce of the European and Canadian schools, and we have an army of no mean proportion annually added to an already overcrowded profession.

APPOINTMENTS.—John Gillies, M.D., of Teeswater, to be an Associate Coroner for the Co. Bruce.

W. A. Comfort, M.D., of Campden, to be an Associate Coroner for the Co. Lincoln.

J. W. Alway, M.D., of Grimsby, to be an Associate Coroner for the Co. Lincoln.

Books and Pamphlets.

A GUIDE TO THE EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND, by J. Gant, F.R.C.S. Third Edition. London: Bailliere, Tindall & Cox, King William Street.

This comprehensive little work contains information which will be found invaluable to those who purpose presenting themselves for examination at the Royal College of Surgeons. The work is well known and highly prized in England by the students, many of whom have to thank Mr. Gant for the success they attained at their examination.

LECTURES ON FEVERS, by Alfred L. Loomis, A.M., M.D., Professor of Pathology, &c., in the University of New York, pp. 362. Wm. Wood & Co. Toronto: Hart & Rawlinson.

The lectures which comprise this volume, thirty in number, were delivered to the class in 1876-7, and phonographically reported by Dr. W. M. Carpenter. The author has adopted an etiological basis in the classification of fevers, and has "endeavoured to include in a few general classes all the numerous types described by different writers." The work may be said to contain a summary of the literature of fevers in this country, and such foreign literature as is of interest to the profession. All the fevers incident to this climate are treated of, also the excanthematous fevers—small-pox, scarlatina and measles. The work is thoroughly practical in its character, and will be a welcome addition to the practitioner's library.

COMPENDIUM OF HISTOLOGY, by Prof. Heinrich Frey, and translated from the German by G. R. Cutter, M.D., New York. Illustrated with 208 engravings on wood. New York: G. P. Putnam's, Sons. Toronto: Willing and Williamson.

The science of histology has made rapid strides within the past decade and has become an integral part of medical studies, but the text-books on this subject are so voluminous that we feel assured

this compend will be gladly welcomed by students and practicing physicians. It consists of 24 lectures in which are embodied all the recent advances in this department. The translator has done his work well, and the typography and finish of the book leave nothing to be desired. With the exception of the introductory pages, which contain a few rhetorical flourishes, the author has confined himself closely to the subject in hand.

MATERIA MEDICA FOR THE USE OF STUDENTS, by Prof. J. B. Biddle, M.D., Jefferson Medical College. Eighth edition, revised and enlarged. Illustrated. Philadelphia: Lindsay & Blakiston. Toronto: Willing and Williamson.

The fact of this popular little compendium having gone through seven editions within a few years, speaks more flatteringly than any words we can offer. The new edition has been carefully revised, and in some parts re-written, and contains all the important new additions to materia medica and pharmacology. The author has succeeded in presenting a succinct account of all the remedies in use in this country, and the work will be found of especial value to medical students, to whom it is dedicated.

A PRACTICAL TREATISE ON THE ANATOMY, PHYSIOLOGY AND DISEASES OF THE EAR, for the use of medical students and practitioners, by Chas. H. Burnett. A.M., M.D., Ear Infirmary. Philadelphia: H, C. Lea. Toronto: Willing & Williamson.

The author first describes the method of examination of the ear, and the instruments used, the diseases of the canal, tympanum, middle and internal ear, and the appropriate treatment in each case.

Part I is devoted to the anatomy of the ear; Part II to the diseases and treatment.

The work contains about 600 pages, and is got up in the very best style of Lea's publications. It is well illustrated with wood-cut engravings, and is quite an accession to practical medical literature. It will be found of interest to the specialist as well as the student and practitioner.

OUTLINES OF MODERN ORGANIC CHEMISTRY; by Prof. C. G. Wheeler, M.D., University of Chicago. Price $1.75. Toronto: Willing & Williamson.

This work has been prepared with special reference to the requirements of medical students. It will be found to meet the requirements of teacher and student, and to be wholly modern in its methods and theory, as well as wholly up to the present in its scientific data. It has a copious index, in connection with which the molecular weights and formulæ of the various compounds are given. The typographical execution of the work is excellent.

The following popular magazines have also been received:—Scribner's Monthly for January, 1878, also St. Nicholas Monthly for children. The former is clubbed with the LANCET for $5.00, and the latter for $4.50 per annum. Appleton's Journal and Popular Science Monthly for January, 1878. The former will be supplied with the LANCET for $5.25, and the latter for $6.75 per annum.

HYGIENE IN AMERICA—being the Centennial Address delivered before the International Medical Congress in 1876—by H. J. Bowditch, M.D. Boston: Little, Brown & Co.

TRANSACTIONS OF THE INTERNATIONAL MEDICAL CONGRESS, PHILADELAHIA, 1876. Edited for the congress by John Ashurst, Jr., A. M. M. D.

THE SPAS OF AIX-LES-BAINS AND MARLIOZ, SAVOY: Their physiological action, modes of application, clinical effects, &c., by F. Bertier, M.D. Paris. London: J. & A. Churchill.

Births, Marriages, Deaths.

On the 18th Dec., R. A. Alexander, M.D., of Grimsby, to Sarah Harriet, elder daughter of Alfred Booker, Esq., Montreal.

At Albion, on the 19th Dec., H. A. Bonnar, M.D., of Chesley, to Miss Maggie, daughter of Alexander Munsie, Esq., of Albion.

At St. Claire, Que., Dr. Wm. Forrest, on the 10th of Nov., in the 74th year of his age.

At Montreal, on the 13th Dec., Dr. W. P. Smith, in the 67th year of his age.

At Bath, Ont., on the 4th of December, 1877, Dr. Aishton, in the 77th year of his age.

* *The charge for notice of Births, Marriages and Deaths, is fifty cents, which should be forwarded in postage stamps, with the communication.*

THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

VOL. X. TORONTO, FEB. 1ST, 1878. NO. 6

Original Communications.

ADDRESS DELIVERED BEFORE THE BATHURST AND RIDEAU MEDICAL ASSOCIATION.

BY J. A. GRANT M.D. F.R.C.S. EDIN. &C.,
PRESIDENT, OTTAWA.

Gentlemen:—During the six months that have elapsed since our pleasant meeting at Pembroke, many and important facts in the various departments of medicine and surgery, have from time to time been brought under the notice of the profession, with all of which I feel satisfied the members of this medical section are fully conversant. Gatherings such as the present of scientific men tend to produce a very beneficial effect. The observations and deductions arising therefrom are freely and openly discussed, and thus a good opportunity is afforded to think out any objections which may arise, either as to the character of disease or the various methods of treatment adopted. Thus all concerned are stimulated to renewed exertion in the observation of the manifestations of disease and a systematic mental training constantly kept in operation, which in time must be productive of beneficial results. The very intellectual and scientific friction, springing out of a free interchange of ideas tend towards the spread of knowledge, and the development of vigorous intellectual activity, the pure outcome of meetings such as the present, only I trust in the incipient stage of organization. In the social sense these gatherings are of much service, thus bringing the members of our profession, more intimately in contact, and establishing a reciprocity of action, which must enlarge our ideas, make us more useful members of society, and give a stability and firmness to that very bond of good fellowship which binds us together morally, intellectually, and scientifically. We are the members of a working and a live profession, and we have a kind Providence showering upon us the privilege of ministering to the physical imperfections and diseased manifestations of human nature. In that mission we have a noble work which if carried out with thorough and determined resolution and a high sense of professional responsibility, the results must be productive of much good to the state, and the personal benefits fully equal to the most sanguine anticipations.

A short retrospect of work under careful consideration by many master minds may not be unacceptable on the present occasion. In the department of physiology, some exceedingly important facts have recently come to light. Professors Tyndall and Lister have by their untiring investigations, given such a stimulus to the whole subject of minute organisms and the ferment actions so intimately associated with these forms of life, that our knowledge of the unorganised or unformed ferments has also advanced very considerably. Ferments are divided into two classes, organised and unorganised, and are distinguished from each other as follows;—The unorganised ferments may be dissolved in certain menstrua without any impairment of their ferment action; thus the ferments of the animal body are mostly soluble in glycerine and in water. Also their action is not prevented by agents such as chloroform and salicylic acid, which almost immediately interfere with the action of organised ferments. The ferments of this class longest known to us, are *ptyalin*, the amylolytic ferment of the saliva; and *pepsine*, the proteolytic ferment of the gastric juice. The fact that ptyalin is absent from the saliva of the great majority of the animal creation, causes it to dwindle down very considerably, as to its physiological importance. Pepsine however, plays a most important part chemically, as a ferment in the gastric juice, and in the presence of dilute acids, at the temperature of the body, has the power of dissolving insoluble proteids and thus converting them into bodies, called *peptones*, which have the power of diffusing readily through animal membranes, bodies which when absorbed are reconverted into the various proteids, entering into the composition of the organs and tissues of the body. From the researches of Kuhne, Bernard, and Corvisart, it is placed beyond doubt that the gastric juice is not the only alimentary secretion

possessing the power of proteolytic action. The pancreatic secretion is now known to have the power of acting on the three chief groups of organic constituents of food: the proteids, the starches, and the fats; brought about by three distinct ferments; one proteolytic, through which proteids are converted into peptones; one amylolitic, like ptyalin, and a third which has the power of converting or decomposing fats into fatty acids and glycerine. To Corvisart, is so far due our knowledge of this proteolytic action of the pancreas. Kuhne however has very recently pointed out by elaborate investigations that not only are the conditions of the ferment different from those of pepsine but the results likewise differ very considerably. Heidenhain has demonstrated that in the pancreas, salivary glands, and stomach, there are structural differences to be observed which correspond with the various states of functional activity of these organs. He has pointed out that the secretory cells of the pancreas do not contain ready formed ferment, at the time of secretion, but a body which yields the ferment and which he terms *Zymogen* ferment generator. To these, the additional discoveries of Kuhne, throw great light not only on the function of the pancreas, but also on the relations of gastric juice; pancreatic juice and bile. He terms the proteolytic ferment of the pancreas *trypsin*, from its breaking up propensity, or disposition. Trypsin cannot digest pepsine, but pepsine will destroy trypsin when in acid solutions. How interesting is the part that the bile plays, first bringing peptic digestion to a close, and then assisting in pancreatic digestion at the very time, when such is required.

Claude Bernard has also pointed out in the intestinal juice, that the ferment which has long been known to exist, in this secretion, is *Inverting ferment*, by which starches, proteids and sugars are modified. I might here advert to the fact that Dr. Herbert Watney is of opinion that fat enters the system, when emulsionized, through the intercellular substance of the epithelium covering the villi. We may well express, we grow fat; but how? The next interesting discovery made in physiology, to which I desire to direct your attention, is that of "Vision Purple." In November last, Professor Du Bois Reymond presented a paper from Dr. Boll, of Rome, to the Berlin Academy, in which a new fact of considerable significance was set forth, viz: "That the external layer of the retina possesses, in all living animals, a purple colour; and that this particular colour is perpetually being destroyed by the light which penetrates the eye." He has also pointed out that the red coloration, seen at the fundus of the eye by the ophthalmoscope, is not the result of the lighting up or illumination of the choroidal vessels, but the true colour of the retina. This latter statement has since been modified. Recently, Professor Kuhne, of Heidelberg, has given the prolific suggestion of Dr. Boll careful consideration, which has resulted in the production of many new and exceedingly interesting facts. He found that the beautiful purple colour persists after death, if the retina is not exposed to light. Under the influence of monochromatic sodium light, the purple colour does not disappear sooner than from 24 to 28 hours. According to Kuhne, as long as the epithelium of the retina is alive, it possesses the power of restoring the faded vision-purple. Thus we have the epithelial layer of the retina performing a particular and important function, which, to use the terms of Kuhne, becomes a purple generating gland. Many years ago, Henreich Muller drew attention to the fact, that the rods of the frog's retina are of a red colour, from the imbibition of red colouring matter of the blood. Leydig and Max Schultz observed a like manifestation in the retina of the owl and rat. These observations are still in their infancy, and before any certain data can be arrived at, will require even closer investigation. Kuhne states, that the cones of the retina possess no purple colour in the frog. In the monkey, the *fovea centralis* is destitute of vision purple. In snakes, the retina possesses only cones and no rods, and is therefore destitute of vision purple. These conclusions lead to the idea that vision purple is not essential to the perception of light. In these investigations it will be a source of congratulation if more accurate information can be obtained, as to the manner in which various physical changes in the retina become the precursors of luminous impressions.

Leaving now the changes of colour, I desire to advert briefly to the recent investigations of Professor Tyndall, at the Royal Institute. It is a well-known fact that vegetable as well as animal infusions, at a certain temperature, become turbid and ultimately lose their sweet smell. This change is induced by swarms of minute organisms,

called in infusions, "Infusoria," and the very lowest class of these are known as "Bacteria." Two theories as to the origin of these low forms are advocated:—1st. That they are developed from eggs or germs, like the higher forms of life: and 2nd. That they arise spontaneously. This latter theory, although warmly advocated by M. Pouchet, of Rouen, has, I might say, collapsed,—having but few followers. For many months past Tyndall, has been investigating "infective atmosphere." His examinations tend greatly to strengthen the idea of the germ theory of putrefaction. Being unable to arrive at satisfactory results in his laboratory in Albemarle street, owing to the impure condition of the air, he removed to a newly erected shed near by, and, having the atmosphere thoroughly disinfected, he succeeded in preventing putrefaction in infusions subjected to moderately prolonged boiling. Boiling does not destroy the power of putrefaction of any substance; it destroys only the germs in the infusion at the time. When an infusion putrefies, it is from the germs in it, not from those in the surrounding atmosphere. The germs of infusion are sometimes confounded with the adult forms. Heat will destroy the adult forms or organisms, whereas the germs from which they take their origin are comparatively indestructible. One result of Tyndall's recent investigations is, "the method of dis-infection by dis-continuous heating." The substance disinfected is first subjected to a temperature of 140° F., sufficient to kill all adult organisms." After a few hours intermission, during which the substance is kept at a proper temperature, to enable the indestructible germs to arrive at a sufficiently sensitive stage of existence, the substance is again subjected to a mild heat. "By this method more is accomplished, towards sterilizing the infusion, in a few moments, than could otherwise be brought about by many hours hard boiling." From such experiments he inclines to the belief that he destroyed more perfectly the successive crops of soft, plastic and extremely sensitive organisms springing from the indurated germs. Two recent experiments render the idea, that putrefaction is induced by an organized germ, exceedingly likely. 1st. The putrefactive process cannot be maintained in an infusion from which air is perfectly excluded. 2nd. It will not take place in an infusion under oxygen compressed by ten atmospheres. In considering these points, the germ theory of putrefaction must not be confounded with the germ theory of disease: "The doctrine of Contagium Vivum," as advocated by Dr. Wm. Roberts, of Manchester, in his address to the British Medical Association. Dr. Roberts directs attention to the remarkable resemblance between a contagious fever and the action of yeast in fermentation, or bacteria in decomposition. The various arguments adduced, and which have been so skilfully supported, are now current in our medical journals. Dr. Beale, of London, in the Lumleian Lectures, for 1876, says, "The very last conclusion that would be adopted by anyone who thoroughly thought over the matter would be, that these low organisms are the causes of the changes in the fluids by which their growth was formed, much less, that they were the cause of the diseases which had existed some time before they began to multiply, in the tissue and fluids of the body." He also points out that the germs of bacteria are to be found in every tissue and fluid of the healthy body, ready to develope, under favourable circumstances, into countless numbers of bacteria. According to Beale, healthy tissues are an unsuitable soil for "septic bacteria." The battle now rests in such hands as those of Tyndall, Roberts and Beale, and certainly recent investigation should enable the members of our profession to combat disease more successfully, and while the highest powers of intellect are grappling with those abstruse problems, let us most earnestly hope that these marked scientific efforts may be the result of more accurate data, as to the necessary initial conditions of disease.

While reflecting on the statement of Dr. Beale, "That we find no traces of bacteria in healthy blood and healthy tissue," let us consider briefly a few facts on the disease termed by Biermer, of Zurich, "Progressive Pernicious Anemia." This term itself has considerable significance, and yet not sufficiently explicit to define its precise meaning. Dr. Bramwell, of Newcastle-on-Tyne, describes this disease as "a profound anemia, which is associated with marked changes in the microscopical characters of the blood, and, in most cases with the presence of retinal hemorrhages." Profound anemia is considered by careful observers a common condition, and is met with in all cases where there is great loss of blood, lymph, or any of the secretions or excretions. Professor Echherst is of opinion that progressive pernicious anemia

can be determined by a microscopical examination of the blood, but even this statement requires still a considerable degree of observation, prior to a satisfactory solution of the entire problem. According to Bramwell (Med. Times, Sep. 22, 1877) in ordinary cases of anemia of sufficiently long duration, alterations of an analogous character, have been observed in the blood. Dr. Osler, of Montreal, has also noted the very small corpuscles upon which so much stress is placed, even in healthy blood. Their numerous presence, however, he favors, as likely connected with pernicious progressive anemia. In tracing the first ray of light, which attracted attention in this peculiar condition, appears according to M. Lapine, to be a case recorded by Andral in his Medical Clinique, 1823. It is considered, that owing to the imperfect report, it may have been a case of Bright's Disease. Then follow two cases, reported by Barclay in the Medical Times, 1851, described as death from anemia. Strange it is, that Dr. Addison, of Guy's, who so distinguished himself in kidney disease, should have been the first to give force and character to his impressions on this particular form of *Anemia* as *idiopathic*, and so graphically revived by Professsor Biermer, of Zurich, as "progressive pernicious anemia." See report, by Drs. Bell and Osler, (Transactions Canada Medical Associations.) In 1857, Dr. Wilks published (in Guy's Hospital Reports) nine cases of fatal anemia. In 1863, Dr. Habershon. of London, published a case in the Lancet, of a like character. Various other reports of cases in British and foreign journals, amount to about 46 in number. More recently appeared, the paper of Dr. Howard, of Montreal, in the transactions of the American Medical Association, at Philadelphia; also the admirable report of Drs. Bell & Osler, on the same disease. It appears to be connected with the pregnant condition; loss of blood; even moderate in character; and slight continuous diarrhœa. The usual anatomical lesions found after death are those incident to anæmia, but in addition, fatty degeneration, defined by Addison as remarkable persistence of fat, in spite of weakness and pallor. This condition has been more particularly noted by Lapine, in connection with the heart. Recent experiments lead to the belief that even fatty degeneration may (through ruptured and weakened vessels) bring about the ecchymoses of the retina, which have been observed. The presence of "microcytes" in a well defined case of *splenic leukæmia*, and their absence in several well defined cases of pernicious anæmia, throws some degree of doubt on accuracy of diagnosis, from this point alone. In conjunction with these microcytes, nucleated red corpuscles have been found in the blood. The cytogenic function of red marrow, as defined first by Bizzozen and Neuman—has given rise to considerable enquiry—but the results so far are not quite satisfactory. Dr. Pepper, of the University of Pennsylvania, has described certain abnormal appearances in the marrow, on which he bases a theory as to the causation of this disease. He considers the anemia of Addison or Biermer, merely as "the medullary form of pseudo-leukæmia." Thus we observe there is considerable diversity of opinion, even on the pathological appearances of this peculiar disease. Recently, he has endeavored to trace a connection between Addison's disease and chronic wasting, in which there are well-defined evidences of anæmia. These he has classed as anæmatoses, contrary to the opinion of Dr. Greenhow, who considers that the blood does not undergo much change in uncomplicated cases of Addison's disease. Dr. Howard, of Montreal, in his admirable paper, gives the following among his conclusions, that neither the spleen, nor the lymphatic glands usually present any, much less any special lesion, in pernicious anæmia. That it remains to be proved that hyperplasia, or other change of the bone marrow is a cause of anæmia. How interesting becomes the fact, as to the remarkable similarity between leucocythæmia in its results, and well defined anæmia. In this particular also, arises a marked link of connection in Hodgkin's disease, the anæmia of which is distinguished from the progressive pernicious, by the marked lymphatic glandular enlargement. I have only briefly touched upon some interesting features of this disease, which is now occupying the close observation of able physiologists and pathologists, and from the diversity of opinion, so far expressed, we may well acknowledge the accuracy of the remarks of Professor Quincke, (Med. Times & Gazette, Oct. 14th, 1876): "We have not to "deal with a single diseased condition. Perni- "cious anæmia—like anæmia, in general, is the "product of extremely various morbid processes,

" and represents the very last stage of the anæmic " process."

Passing to the topic of fever, particularly typhoid, which has been widely observed in this part of the Ottawa section during the past year, I shall note a few facts. In most of those cases which I visited during the past summer months, the cause has been traced to impurity of milk, and of water. In one family recently seen in consultation with Dr. Carmichael, there were no less than five cases of typhoid, which resulted from impure milk. This confirms the opinion expressed by Dr. Ballard, of Islington, England, as to the frequent origin of this disease. Ten years ago, in the Ottawa valley, the fevers observed were more of the remittent type, mild in character, and usually terminating favorably. This form of fever, has, however, been replaced by typhoid, which in Canada, as in many parts of the neighboring republic, presents an annual autumnal curve. It has not alone been confined to the city, but has also been noted in various parts of the country, where it was difficult to trace its origin. Isolated cases are always of vast importance, for it is such which are most likely to give a clue to the " production of this disease." The sudden accession of enteric trouble, and head symptoms, even with a moderately clean tongue, I have invariably found to be of considerable significance. Usually it gives way to quinine and potass. chlor., which treatment is now largely adopted in both hospital and private practice. Frequent and early injections of warm water, I have found of the greatest service, thus washing out the bowel and removing secretions of a most noxious character, as well as soothing parts, which it appears, nature has selected in order to eliminate a considerrble share of the *ma'eries morbi* of this disease. Typhoid fever is a great searcher of the system, and should any organic weakness pre-exist, how rapidly such diminished power becomes tested. Tabulating temperatures has now become an important feature in the daily history of all such cases. How frequently we find the thermometer placed in the axilla, and a record thus taken. Dr. Hans Megscheider, of Berlin, states that there is no constant relation between the internal temperature, as measured in the axilla, and the general temperature of the surface, and that there is a greater variation in the temperature curves in the same part of the skin in the same person in fever, than in health; but in fever there is a striking fall of temperature, notably lower than in health. In England, the practice now is to place the thermometer in the mouth, when practicable, which is certainly the most rational idea, as thus a more correct estimate of systemic temperature can be obtained. M. Broca communicated to the " Asociation Francaise pour l'Advancement des Sciences," in September last, an interesting paper on the subject of " Cerebral Thermometry." He uses very delicate thermometers, and covers with wool the part of the bulb which is not in contact with the skull, thus guarding against those thermic influences which the surrounding atmosphere might communicate. He found that the maximum temperature of the brain was 34.85°c, and the minimum 32.80°. Also he observed, that the thermometers on the left side invariably marked a higher temperature than those on the right side. The difference was found to average about $\frac{1}{10}$ of a degree, and only observable when and so long as the brain is at rest. When the brain is actually at work, there is a rise in temperature, as after close reading for about ten minutes, about half a degree was shown to take place. Clinically these facts are of considerable importance, and as the subject becomes worked up, under the careful guidance of M. Broca, the accurate diagnosis of disease will be considerably facilitated. On the subject of the nervous system, the recent investigations of Hitzig, Ferrier and others, have established the existence of a " motor zone " of the superficial cerebral sub stance, in intimate relation with the nuclei of the motor nerves of the bulb and spinal marrow. As the result of their researches, it has been demonstrated, that partial irritations will produce partial epilepsy. They are also of opinion that no direct communication can exist between the cellules of this region, and the cellules of the anterior gray cornua of the spinal marrow. The cellules of this " motor " tract constitute the apparatus by which the dictates of our intelligence are arranged for transmission to the outer world. The brain does not appear to possess any special vaso-motor centre. Its vaso-motor centre is linked to the general vaso-motor system, having centres in the spinal marrow, central ganglia, and also in the convolutions. The corpus striatum is endowed with motor-power, and its cellules constitute an apparatus for the transmission of impressions to the

muscular system; thus it not only is an instrument of the hemisphere, but is also intimately associated with automatic action. The observations of Ferrier cover a wide range, and exhibit much labor and research in clearing the path of intellectual activity. The nervous system occupies a place and power in the animal creation of vast importance, and notwithstanding the energy and skill of the anatomist and physiologist, we as yet only appear to be approaching the data by which a solution may be given to a great mental problem. No sooner are Ferrier's opinions expressed, than Eugene Dupuy, M.D., of Paris, takes the initiative in expressing views considerably at variance with those of his able co-temporary. "All his psychological deductions, I own, are based on physiological facts, but these facts, I have proved, I trust, to have been considered only in a one-sided way, viewed unequally, as the phrase goes." He considers there is a seeming concordance between the theories of the advocates of the localization doctrine, and the deductions of Herbert Spencer, Professor Bain, and others who have been occupied in the same line of thought. Brain substance, and in fact nerve tissue generally, are actively under the consideration of many of our master minds, and how gratifying will be the announcement that the much vexed question; the influence of mind over matter, has been settled and placed beyond the reach of Punch, who asks: "What is matter? Never mind. What is mind? That's the matter." The recent observations of Mr. Romanes, at the Royal Institute, on "The Evolution of Nerves," is of much interest. He concludes, after important anatomical research on the Medusæ, or jelly fishes, which have the lowest form of nervous system as yet demonstrated, that the conducting substance is intermediate between nerve and muscle, a differentiated "line of discharge." Should his deductions prove correct, the conclusion arrived at would be, that the link between ordinary contractile protoplasm and excitable nervous tissue, has been discovered by Mr. Romanes, in those lines of discharge. The recent announcement by Professor Englemann, of Vienna, that his experiments tend to confirm the views of Hermann, on the subject of "Muscular Current," is a source of great interest. Some years ago, Hermann stated that, in a perfectly uninjured, unskinned animal, the muscles which are in a state of rest, are entirely free from electrical currents, and that the absolutely uninjured heart is altogether currentless; that not only the heart as a whole, but each individual muscle-cell contained in the heart, whilst in an uninjured state, and at rest, is almost or quite free from electrical currents. The point of greatest importance in Englemann's researches, is the discovery of the very rapid diminution of the electro-motive force of the current observed, when a cross section, through the base of the ventricle, is connected with one electrode, and the apex with the other. This entire subject is full of interest—and when we consider the important place electricity now occupies in the treatment of disease—I am quite satisfied it will receive at your hands well-merited attention. On the present occasion, I have adverted briefly to a few topics, upon which some master-minds, well termed "great" have very recently been occupied. Their observations and deductions have been the result of untiring zeal and unrelaxing efforts. What means the term great? What is its significance? It is that which credits him with being supreme in his particular department. Dante was an eminent poet, and Bacon a distinguished philosopher, and so is it in the paths of our noble profession. We may lose sight of the idea, but let us respect our calling, and while cherishing the memory of those whose vast intellects have stamped the profession as one to be respected and honored, let us pass lightly over the imperfections of any possessed of less gifted qualifications. Charity begins at home, and a good example is frequently productive of a most salutary influence. Imagine the vast labor devoted to many researches to which I have briefly adverted. The nights of toil, the restless hours, the patient endeavours, the uncertainty of support, and last, altho' not least, the antagonism of equal intellectual power, in an opposite channel. Public opinion is a lever, possessing great microscopic and analytical acumen; its ultimate decisions are seldom in error. In fact, common sense, the very foundation of practical experience, will solve the problem. In conclusion, I am not unwilling to acknowledge the fact that so great is the progress of our age, in almost every department of thought, that in the short space of a single life-time, the highest degree of intellectual capacity will only enable the most constant worker to accomplish a single atom in the scale of human understanding.

ON THE USE OF LARGE DOSES OF ACETATE OF LEAD IN POST PARTUM HÆMORRHAGE.

BY J. NEWELL, M. D., L. R. C. P. & S., SPRINGFIELD, ONT.

In the January No. of the CANADA LANCET I observe an article on the above subject, from the pen of Dr. Workman, which was read at the last meeting of the Canada Medical Association, and in the perusal of which I have been not a little instructed, as I had not been aware that its use in large doses was also beneficial in other profuse hæmorrhages. Having been engaged in practice for the past seven years, I have concluded it would not be amiss in me to add the result of my experience in the employment of acetate of lead in post partum hæmorrhage, and although I have had but very few cases of hæmorrhage occurring after delivery, from the fact that I almost invariably towards the close of labor administer a full dose of ergot, and am very particular in keeping a firm grasp of the recently emptied uterus, yet in some few cases I have had hæmorrhage of a very alarming character supervene, and notably so in one case, the notes of which I shall presently give,—and here allow me to make a digression. It is my opinion that amongst accoucheurs, the proper management and the prevention of exhausting hæmorrhages in the third stage of labor is not so well understood and practised as its importance demands. I have for some time past removed the placenta by *expression* as it is termed in that excellent work "Playfairs Midwifery," with most happy results, and I am fully satisfied that the perusal of the chapter on the management of the third stage of labor in the foregoing work will most fully repay the youngest as well as the oldest amongst us.

On the 7th of January 1877, I was summoned to attend Mrs. C. in her first confinement. The labor progressed normally and in about seven hours after my arrival she was delivered of a fine female child. After waiting a short time I removed the placenta, as was taught me, and as is directed in the standard works. The uterus seemed contracted down firmly, and no flooding of any moment occurred. On coming into the room after a short absence I was alarmed at the exsanguined appearance of the patient, and to such an extreme degree as I had never witnessed before. Immediately divining the cause I grasped the now relaxed uterus with my left hand, whilst I introduced my right into the uterus, and by making both internal and external manipulation, endeavoured to excite contraction, the blood in the meantime flowing in a perfect torrent. Realizing that my patient would perish in a few minutes if I did not arrest the hæmorrhage, I called for my medicine case, and taking out a teaspoonful of the crystallized acetate of lead (which by the way I always take along with me in such cases) I ordered it to be dissolved in some water, and had it administered to the patient at once, and at the same time had an assistant raise the foot of the bed. The effect of the lead was I might almost say magical. The flooding ceased at once, and in a very short time the uterus contracted, and expelled my hand, and I felt assured that I had been, through the administration of the lead, the humble means of saving a human life. In a very short time, and as soon as the patient was able to swallow, (for when the hæmorrhage ceased she was lying insensible), I administered a draught of brandy and ammonia. I then applied the binder with a compress underneath, and after giving some nourishment and administering an opiate I waited for a couple of hours and went home. From this on, the patient under stimulants and nourishment, with an occasional opiate, made a rapid and satisfactory recovery. In this case I feel quite confident had I trusted to ergot, with manipulation, cold, &c., that before contraction became established, my patient would have sunk, never to rally. I have tried the lead in other cases of post partum hæmorrhage when the flooding was not so profuse, as in the one described, and I have always found it efficient and reliable, and have yet to see any ill effects from the large doses in which it has been exhibited.

Dr. W. in his article says:—"I was rather surprised, if not a little mortified to find that in a total of perhaps one hundred and forty students of the Toronto Medical Schools examined by me on obstetrics last April, *only one* gave amongst the multifarious suppressors of post partum hæmorrhage the exhibition of large doses of acetate of lead." I believe I can lay claim to the distinction of being that person, for although I was a graduate of 1871, still I did not pass the examination of the Medical

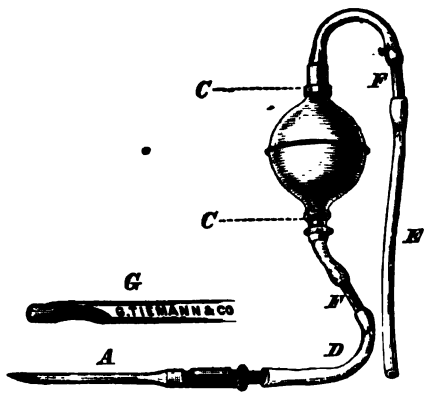
Council till last April. I gave in my answer *drachm* doses of acetate of lead as being a most efficient suppressor of uterine post partum hæmorrhage. The administration of large doses of acetate of lead is most strongly inculcated and advocated by Prof. Lavell, of Kingston, as a potent means of arresting post partum hæmorrhage.

I find that my paper has far outgrown the limits I had assigned to it, but if it only has the effect of influencing my medical confreres to try the administration of large doses of acetate of lead in the cases indicated, I shall feel satisfied that my labor has not been in vain, and that they will be amply repaid with its results.

A HANDY ASPIRATOR.*

BY SIMON FITCH, M. D. EDIN., HALIFAX N. S.

This is an India-rubber apparatus, like a Higginson or Davidson syringe, but with *treble thickness of all the walls*, which gives strong resilience and powerful suction to the bulb, and prevents the possibility of obstruction from collapse of the tubes. The aspirator-needle may be attached to either tube, for exhaustion or injection, and it may be worked with *one* hand while the needle is inserted and steadied with *the other*.



A represents the dome aspirator-needle, with the cutting-point projected, ready for puncture; *G*, a magnified diagram of the same, after insertion, with the dome advanced so as to protect the interior of the cavity during aspiration; *B*, bulb in upright position to insure the best action of valves; *C C*, valves; *D*, entrance-tube, *E*, exit-tube; *F F*, bits of glass tubing through which to observe the presence or absence of fluid.

After the needle is introduced the bulb should be held upright, or perpendicular, with the orifice by which the fluid enters *below*, and the orifice of exit *above*; the valves at these two orifices will fall exactly into place, and regurgitation toward the needle will be impossible. If the operation is to test the existence of fluid at uncertain depths, the bulb may be tightly squeezed till the point of the needle enters the surface; then the pressure may be relaxed, when the strong suction will discover fluid instantly upon the needle reaching it. If the operation is to empty a cavity, as a bladder or pleura, then, after the current is established, by once or twice working of the bulb, the flow will continue of itself, from mere siphon-action without further manipulation of the bulb; but if, from the smallness of the needle, the stream seems sluggish, it may be quickened by working the bulb occasionally or continuously.

I have used this apparatus in hydrothorax and empyema, and in exploration of obscure abdominal and pelvic enlargements, with great satisfaction; and, with the *dome-trocar* needles of No. 1 and No. 4 sizes, it is available for all purposes of aspiration, and especially for cases requiring accurate steadiness of the inserted needle, as in tapping the pericardium and the joints; for, as the whole affair is managed by the operator alone, there will be complete unison between the hand holding the needle and the hand working the bulb. Messrs. Tiemann make the instrument exceedingly well, with the *dome* needles as described, and fit it into a small case.

*Published also in N. Y. Medical Journal.

Correspondence.

ACETATE OF LEAD IN POST PARTUM HÆMORRHAGE.

To the Editor of the CANADA LANCET.

Sir;—I have now for some years withdrawn from the active pursuit of my profession, except among immediate family connections and a few intimate personal friends, but, "Even in our ashes live their wonted fires," and the January No. of your journal having been forwarded to me, I was pleased to see the article communicated by Dr. J. Workman, on the use of large doses of acetate of lead, and I beg to offer my corroboration of his testimony in its favor.

Dr. W. is however slightly inaccurate as to dates. I recollect all the circumstances of the case referred to; it was orchitis, and as I left Montreal in 1827,

it must have been anterior to the date (1830) given by Dr. W. I believe it was in 1825. Under the authority of the great name of Dr. Stephenson, I for many years invariably had recourse to large doses of acetate of lead in alarming cases of post partum hæmorrhage and I can safely say I have *never* had occasion to regret it. It has never failed me, nor have any ill effects ever followed its use.

Upon one occasion (in 1820) an attempt was made to fasten on me the charge of "reckless rashness in the exhibition of monstrous doses of heroic remedies." My patient however testified "I knew I was dying and Dr. A. gave me something sweetish which puckered up my mouth and it immediately brought me back to life." There is no fact in all my past experience of which I am more certain than that her life was saved by my "heroic" dose and that nothing else would have saved her. I have seen the effects of the douche of ice water, of the plugging of the vagina with ice, of introducing the hand, and of abdominal frictions, but in my experience none of these means compare with the acetate. Where I have had reasons from past experience to dread flooding, I have been in the habit of giving a full anticipatory dose of secale cornutum, but I question whether the acetate would not be the safer and better practice.

As to the use of the perchloride of iron injected into the uterus—though I know it has high authority in its favor, I have never witnessed its effects and I should not have the courage to try it—I should be the less tempted to do so, as I know the action of the acetate of lead to be more safe and immediate. I have used it in scores of cases, and I know of no remedy in any disease that is so prompt in its action; its celerity seems actually to be electrical.

Yours respectfully,

ALFRED A. ANDREWS.

Montreal Jan. 10th, 1878.

SULPHATE OF CINCHONIDIA.

To the Editor of the CANADA LANCET.

Sir;—I notice in last number an article on "Sulphate of Cinchonidia." I may state that I have used it exclusively for the past 18 months with perfect satisfaction as a substitute for quinine, and with perhaps better effects as a tonic. I have used on an average five ounces per week, and even at the same price would use it in many cases in preference to quinine.

Yours, &c.,

H. McColl.

Lapeer, Mich. Jan. 12th, 1878.

Selected Articles.

CASES OF CARDIAC DISEASE.

CLINIC BY PROF. WM. PEPPER.

CASE 1.—J. McK., male, fifteen years of age. Has been complaining of palpitation, dyspnœa, and flushings of the face for the past four or five years. About two years ago had a severe attack of rheumatism. No dropsy and no swelling of the feet or any other part of the body. His heart today is very rapid; pulse running 124 to the minute. The heart's action is violent, and the apex-beat is too far down and too far to the left. The impulse is heaving. Both sounds of the heart are diseased. The murmurs are very weak at the point of the heart. There are no murmurs heard upward and to the left, but upward and to the right they are heard very strongly. The murmurs are transmitted into the aorta and carotids. This is a case of double aortic disease, stenosis and regurgitation.

CASE 2.—P. S., male, 40 years of age. Has been suffering for four years from sharp pain over the heart, dyspnœa and palpitation. I find, upon auscultation, two murmurs, one synchronous with the carotid and the other with the radial pulse. The natural sounds of the heart are entirely obscured in this case. The murmurs are but feebly heard at the point of the heart. The first murmur is transmitted round to the left; the other, which is of a duplex character, is heard loudly in the carotids and in the bronchials as low down as the elbow. This is a case of double aortic and of mitral disease, aortic stenosis and regurgitation.

CASE 3.—L. P., female, 15 years of age. Had pain in shoulder for first time two months ago. This pain is worse in damp weather. No cough; appetite good; father has had rheumatism; no swelling of the feet, but good deal of epistaxis. For past two years has suffered from shortness of breath and palpitation, headache, dizziness and slight symptoms of dyspepsia.

CASE 4.—M. O'B., 11 years of age. For two years past has been complaining of pains in joints. More recently there has been palpitation of the heart and shortness of breath. Has been having obscure attacks of rheumatism for past two years. We must remember that rheumatic attacks are very often overlooked in young children. The case is treated as one of simple, continued fever, teething, or indigestion, and nothing thought of the rheumatic trouble until four or five years afterwards, perhaps, we find that the patient has some form of heart disease. Both of these cases (3 and 4) are instances of mitral regurgitation. The murmur in both cases is systolic, synchronous with first sound of heart, and transmitted round to the left.

I want to say a few words to you with regard to the symptoms and diagnosis of heart disease. Our first duty when disease of the heart is suspected is to examine both heart and lungs carefully. The two most constant symptoms of heart disease are shortness of breath upon exertion, and palpitation. There may be, in addition, dropsy, epistaxis, and cough, with spitting of blood.

First, as regards the dyspnœa. It may be constant, and it may only occur upon exertion. This symptom is always present in serious organic disease of the heart or lungs, and is due to the imperfect oxidation of the blood, owing either to passive congestion of the lungs from mitral disease, or to the fact that the action of the heart is so rapid that the blood has not time to be oxidized in its passage through the lungs. Palpitation, just like dyspnœa, may be constant, or only occasional in cardiac diseases. It may be caused either by the imperfect filling of the cavity of the heart, or by the fact that the heart is always engorged and always struggling to expel the blood. Where there is a nervous element in the case the palpitation may be due to disturbance of the cardiac pexus, or positive degeneration of those nerve centres. Dropsy is only present in the later stages of heart disease, and in most cases is due to a mechanical damming back of the venous blood. This obstruction may be so great as to cause rupture of the walls of the veins, and hemorrhage, instead of leakage of serum.

In making a careful diagnosis of heart disease you must begin by examining the heart. Thus let me take Case 3, for instance. I find slight fullness of the præcordia. The impulse is felt as high up as the third rib, as far down as the sixth, and from the edge of the sternum out to beyond the line of the nipple. In this instance the area of heart dullness is three inches up and down, and two and one-half inches transversely. The normal limits of dullness are not so great. This tells me at once that something must be wrong. Let me try auscultation, as it is the most accurate physical method. I begin by listening over the head of the third rib on the left, because that spot is close to all the valves of the heart. By listening here I can distinguish a very marked murmur. (The Professor at this point entered into a long description of the character of the two normal sounds.) In both these cases (3 and 4) the murmur is synchronous with the first sound of the heart.

We have determined that there is a murmur, and also that it is synchronous with the first sound of the heart, but the point now arises, where is the murmur produced? Let us note in what direction the murmur is best carried. This is always the direction in which the blood is passing through the diseased valve. In this case I cannot hear the murmur at all at the aortic cartilage, and but feebly at the pulmonary cartilage. At the point of the sternum it is scarcely audible. Evidently there is no aortic, and no tricuspid disease. It is distinctly audible at the point of the heart, and is transmitted round under the left arm, and distinctly heard at the lower and posterior angle of the left scapula (this point corresponds with the apex of the heart in front). Let us see, now, where we are. We have heard a strong, blowing, systolic murmur, which is synchronous with the first sound of the heart, and is heard most distinctly at the point at the heart, and is transmitted round under the left arm and heard at the posterior, inferior angle of the left scapula. *It must be a mitral regurgitant.* In the same way I might go through Cases 1 and 2, but I hope you have seen enough to understand the method of physical diagnosis in cases of cardiac diseases. At some future time I shall have something to say to you about the treatment of these diseases.—(*Philadelphia Med. and Surgical Reporter.*

GENERAL SUBINVOLUTION WITH PROLAPSUS OF THE UTERUS AND VAGINA.

CLINIC BY PROF. THOMAS, OF NEW YORK.

Eliza G., a native of Ireland, and thirty-nine years of age. She has been married sixteen years, and has had seven children, but no miscarriages. The last child was born eight years ago, but she is still living with her husband. She says she has been complaining for three months past, but was quite well before that. She first noticed a little lump in the right side, with pain, which "struck upward" over the hepatic region, and extended as far as the head. She also complains of a "weakness in the back," and suffers from leucorrhœa at times. Her menses are regular, and she never has any trouble with the bladder. This is all she has to tell us, and you will notice how very vague the symptoms are. There is nothing in them whatever to direct our attention to the uterus except the backache and leucorrhœa; but on account of these I thought it was better to make an examination, and when I tell you what I found I am sure you will be not a little surprised to learn the gravity of the affection here present when the symptoms were so trivial. This case shows very conclusively the value of physical diagnosis, and any one who had not resorted to it here would probably have treated the woman for disorder of her liver. I cannot impress upon you too strongly the very great importance of physical exploration, not only in uterine but in all other diseases. Well, on passing my finger into the vagina (which, by the way, I had some difficulty in doing), it encountered the cervix, very much enlarged, within two inches from its entrance. The reason that I had trouble

in introducing the finger was that both the anterior and posterior walls of the vagina were prolapsed to a marked degree. With the former the base of the bladder was dragged down, and with the latter the rectum, constituting what is known as a rectocele, so that two distinct tumors were formed at the vulva, the presence of which the patient says she has noticed for some time. On conjoined manipulation the body of the uterus is found to be abnormally large, and as the probe passes into its cavity for three and a half inches we judge it to be in a state of subinvolution. Furthermore, the examination reveals that there is no perineum. No cicatricial tissue is present, and we naturally ask what has become of it? The fact is it has become completely spread out, as it were, by the rectocele.

Now, what has taken place? The vagina was weakened at the time of the last pregnancy. Being large and flabby it fell out of the body after the labor, and gradually carried down the rectum with its anterior wall. Subinvolution of the uterus also occurred, and it is now dragging that organ down too, and will soon have it out of the body. The process of retrograde metamorphosis after parturition was interfered with not only in the vagina and uterus but also in the perinæum. The perinæum always undergoes a process of preparation and development before labor, and it is just as necessary that involution should take place in it as in the uterus and vagina. The difference between the condition of the perinæum at ordinary times and at the close of pregnancy is very evidently shewn when we undertake to remove large fibroids, perhaps with the obstetrical forceps, as I have sometimes done. In such cases the perinæum invariably yields, while as you know, of course, it is very rare exception in parturition. The reason is that it has not undergone the necessary preparation for the strain to be brought upon it, which always accompanies utero-gestation. At present our patient is a fair candidate for prolapsus in the third degree, a complete *procidentia uteri.*

Such cases as these are difficult to treat satisfactorily. If the time of the menopause had arrived we could count upon the entire disappearance of the subinvolution of the uterus. But some years must yet elapse before that occurs, and I do not hesitate to say that there are no means at our command for reducing the organ to its normal size in such a case as this. I know it is claimed that this can be done by the application of the actual cautery or potassa fusa (after the method of Sir Henry Bennett) to the cervix, but it does no good whatever, and only endangers the safety of the patient. This prolapsus of the uterus is taking place by reason of the traction exerted from below, and there are two ways of preventing it from going on any further: the first is for the patient to wear a well-fitting and appropriate pessary to hold up the uterus at the same time that astringent injections are used upon the vagina. The proper pessary for this case is one made of hard rubber, such as I show you now, and consisting of a cup, to receive the hypertrophied cervix, and a supporting stem divided into two branches, one of which curves anteriorly towards the symphysis pubis, and the other posteriorly towards the anus. From the extremity of each of these arms passes an India-rubber band which is attached to an abdominal belt, and the uterus suspended in this way will be able to resist all the dragging force that is exerted upon it from below. The great advantage of this instrument is that the patient can apply it herself, and it should always be removed at night. After a time there will be almost no traction to overcome, for the mere retaining of the vagina in position will gradually remove the engorgement now existing, and its walls will become more and more strengthened by the persistent use of the astringent injections of which I spoke. If this plan of treatment is adopted I think I can show her to you very greatly improved in the course of a very few months.

The other plan to which I alluded is the operation for the removal of a portion of both the anterior and posterior walls of the vagina and the formation of a firm ridge of support in each. This would prevent any future prolapse of the vagina but not of the uterus.

ALIMENTATION IN SURGICAL ACCIDENTS AND DISEASES.

BY FRANK H. HAMILTON, M.D.

* * * * * * *

If the food is not appropriate, the patient who receives it will not only suffer from lack of nourishment, but also from the irritation caused by the presence of undigested, and, consequently, irritating materials. *Such attempts at alimentation will certainly increase febrile action and aggravate inflammation.*

The fact is, however, that examples are exceedingly rare in which some feeble ability to digest food does not exist; and even in these exceptional cases, a judicious selection and timely administration of certain articles seldom fails to produce an appetite, or at all events to convey to the system some nutrition. A warm, well seasoned and well cooked cup of broth, or a fragrant cup of hot coffee and milk, will often relieve nausea and epigastric distress, assuage a colic, diminish the severity of a headache, lift the tone of the nerves suffering under shock; and the same or similar means will often abate sensibly febrile disturbance and soften the pains of inflammation. Who ever knew of harm from food under these circumstances, when carefully and judiciously administered? I am, at least, certain that for every case in which

it can be shown to have done harm, twenty cases will be found in which it has done good.

Medicines—so-called—are in general so far inferior to a fragrant and savory cup of food, as peptic persuaders, and I have seen many patients suffering with nausea and loss of appetite, who have been speedily relieved by the mere omission of the bitter and disgusting tonics which have been forced upon their reluctant stomachs. It is true that, under the circumstances referred to, now and then good medicines do good and improve the appetite, and their occasional abuse or unskillful exhibition is no reason why they should never be used. Nevertheless, I wish to say, very emphatically, that the abuse of medicines is more than "occasional." It is alarmingly frequent. It is a simple elementary truth, that there are many diseases and surgical injuries in which recovery takes place as speedily without medicines as with medicines; and if any medical man has not learned this, and continues to give drugs from day to day for every form and grade of human ailment, so much the worse for him and for his patients.

But if men can live and recover from disease sometimes without medicine, no man can live or recover from disease without food. Organs which are maimed and struggling must have food, or they will soon cease to labor, and will die. A wound will not heal nor a bone unite without nutriment. In every human malady and surgical accident, repair and recovery wait on nutrition.

It is not improper, then, to say that as a means of restoring the sick and wounded, when both may be needed, good food is of more importance than good medicine. Large armies have always suffered more from a deficient supply of proper food than from a deficient supply of proper medicines.

One conclusion to which my statement of facts and process of reasoning leads me is that hospitals and dispensaries ought to have the means and appliances for supplying to the sick, infirm, and maimed who come to them for help, not only medicines and skilled medical and surgical services, but also an abundance of nutritious food; indeed, that the question of food ought to be the first, where it is generally the last consideration.

There is an impression among many laymen, who have the charge of hospitals, that "extras," including eggs, milk, etc., with the services of the "diet kitchen," ought to be reserved for the few who are very seriously ill, and that all the slightly ill or convelescent should be content with the "ordinary" diet of the hospital, which is seldom very attractive to even a sound stomach. Those who have had experience in the United States army hospitals know that this was never the theory or practice of these hospitals; but that all of the regular rations were commuted, and with the money thus obtained nothing but what might be termed "extras" were purchased.

If a man is able to eat hard-tack and salt pork, or tough beef and unsavory soups, he is able, generally, to go to work, and ought not to remain in the hospital. Though well in other respects, and detained only because his broken limb is not thoroughly repaired, it does not follow that he can eat and digest what he could easily master when working out of doors, and carrying brick-hods to the top of five story buildings. If it is an object to get these men speedily out of the hospital, and thus save the tax-payers; if it is desirable to restore them soon to their families, of whom they may be the sole support, then it will be necessary to give them food which will encourage an appetite, and be easily digested by a stomach weakened by long confinement, sickness, and anxiety. They must be treated in this respect in the hospitals, as we—you and I—are treated at home, where the utmost care is taken to see that our food is suitable and appetizing; where, although we may have ceased to take medicine, so long as we find ourselves unable to return to our usual out-door duties, we are fed only upon "extras." These same poor people, inmates of the hospitals, if they were at home, in their own humble apartments, would be fed better, so far as the quality and mode of preparing the food is concerned, than they are in most public hospitals. No pains are spared, generally, to furnish the poor all the medicine they need; but what they want most, and get the least, is good food.

The medicines and liquors dispensed at Bellevue Hospital during the six months ending July 1, 1877, cost $7,750; and for all the charities and prisons under the charge of the Commissioners of Public Charities and Correction, these two articles cost, for the year 1876, $40,892; about one-fourth of which, the apothecary informed me, was for liquors; leaving a balance of about $32,100 as having been expended for other medicines than stimulating liquors. Possibly a much larger sum has been expended for "extras" in the same institutions. Upon this point I am not informed, but my long connection with this, and other civil hospitals, enables me to say that it is generally more difficult to obtain proper food, and a supply sufficient for the demand, than it is to obtain good medicines and in sufficient quantity.

In these remarks there is no imputation upon those excellent and humane gentlemen who are in charge of these institutions. In my opinion we are alone responsible for this state of facts, inasmuch as we have hitherto failed to urge upon them and the public the greater importance of nutriment and the comparatively less importance of medicine.

Some intelligent men and women, not of our profession, have seen the want before we have, and they have established in various parts of the city diet kitchens, to supply the very want of which I am speaking, and which are properly made sub-

sidiary to the dispensaries. There ought to be one immediately connected with every dispensary, and in the same building as the drug store now is. Indeed, I would be glad to see one-half of the drug stores, and all of the liquor stores converted into diet kitchens. I am not quite certain that they need all to be eleemosynary in their character. It is possible they might, some of them, be self-sustaining. They will not have to be taxed like liquor shops, to pay for the crime and pauperism they create—nor will they kill as many people by accidental overdosing as do drug shops, not to speak of the deaths from overdosing caused by the prescriptions of illiterate and careless doctors. Those who have them in charge will not require a very long apprenticeship, and need know nothing of Latin.

Very few of their materials will have to be imported, and they will require very little advertising, so that all in all these diet kitchens can be run very cheaply.

You will not consider it out of place, I trust, if I read to you the opinions of a professional athlete, Mr. J. M. Laflin, as reported in one of our morning papers—the *Herald* of October, 21, 1877. He is speaking upon the subject of diet in training.

"In the first place, there are at the present day many young men who are preparing or training for athletic pastimes or pursuits who naturally apply for instruction as to diet to some professional athlete, who gives them the stereotyped advice: 'Eat plenty of rare meat.' Now this advice would be all well enough, perhaps, if the stomach of the one asking advice was as strong as that of the one giving the advice; but it is not, of course, and so, as it requires a great deal of tone and strength in the stomach to digest rare meat, the beginner in athletics finds himself unable to digest the rare meat he eats.

"Then in the second place, nothing is well digested in the stomach against which the palate revolts. In many instances—myself, for example at first—the taste of very rare meat is very unpalatable indeed, and to overcome this difficulty, recourse is had to all sorts of spices and condiments to render it more pleasant. Most spices and condiments are pernicious in the long run to digestion, and so rare meat, eaten under these conditions, becomes positively injurious.

"Meat ought to be neither rare nor what is called well done, but medium, so as to be palatable without spices, etc., while at the same time it retains a large share of its natural juices.

"More harm has probably been caused by this notion of rare, underdone, bloody meat being unwholesome, than by any other idea on the whole subject, and the very first thing, young men, especially young men luxuriously nurtured, who take a personal interest in athletics should do is to abjure this notion altogether."

In these opinions I fully concur, and if Mr. Laflin's opinions are sound in reference to the eating of raw and highly seasoned meats by those who are in health, it is quite certain that this, to civilized palates, disgusting and overseasoned food is unsuitable for the sick, and it would be well if medical men would give attention to the common sense and practical remarks of this gentleman.—*Hospital Gazette.*

COHN ON THE PRODUCTION OF LOCAL ARTIFICIAL ANÆMIA AS A MEANS OF TREATING DISEASES IN THE EXTREMITIES.

(*London Medical Record*, Dec., 1877.)

Dr. Bernard Cohn relates his experience in treating three cases, (one of which was a white swelling of the knee,) of acute and chronic inflammation in the extremities, by temporarily rendering the limb bloodless with Esmarch's bandage:

An acute phlegmon of the toe, with inflammatory swelling of the foot, after fifteen minutes' application of the bandage, was followed by a very notable diminution of the swelling and pain. In a case of very painful diffuse swelling of the forearm, the pain, and the swelling, to some extent, disappeared. On these two cases the author properly lays less stress than upon the case of joint disease. A child of three and a-half years of age had suffered for eighteen months from a white swelling in the knee. The disease had originated in a fall, and a well marked acute stage had been followed by the characteristic chronic changes of tumor albus. The joint was swollen, painful, much flexed, and scarcely moveable, either actively or passively. It had been treated by fine gypsum bandages, covering twenty-six weeks. When Dr. Cohn first saw it, the affected knee was one and one-half inches larger than its mate, the bones felt thickened, the subcutaneous tissue infiltrated, and the borders of the patella were difficult to make out. No effusion of the joint was observed. The general condition was otherwise satisfactory.

The treatment was commenced by applying the bandage for a few moments only. But, after four or five days, it could be borne an hour daily—sometimes longer. Occasionally the application was made twice daily, when it was allowed to remain half to three-fourths of an hour each time. After three weeks it was found that the difference in the size of the two joints was reduced from four centimetres, (one and one-half inches,) down to half a centimetre. The condyles had become restored to their natural form, the patella loose and moveable, pain and tenderness had completely disappeared, the amount of passive motion was increased, and there was no pain on movement.

Forcible extension was now practiced under chloroform, and was attended by a recurrence of the inflammation; but this was rapidly subdued by the previous treatment. The final result was almost perfect cure; the patient could walk and move the joint in all directions without pain. The only trace of the previous disease which remained was a trifling amount of swelling, and a somewhat impaired mobility of the articulation.

Dr. Cohn states that the limb should be thoroughly emptied of blood, and the occlusion should be a perfect one. The final constriction should be made with several turns of the bandage and not with a narrow tube. In reply to a query, "How long can this bloodless state be maintained?" he says, The limit of safety is not likely, he thinks, ever to be reached, and we need not be anxious on this score, if the shutting out of the circulation be perfect. An imperfect occlusion is dangerous. The blood passes by the arteries into the limb, while the venous outlets are completely stopped. The pain is a great difficulty in this method, but it may be reduced by not applying the bandage constricting the limb above tighter than is absolutely necessary.—*N. Y. Hospital Gazette.*

INDICATIONS FOR DRAINAGE OF THE KNEE-JOINT.

Dr. J. Scriba, assistant in the Surgical Clinic at Freidburg (Baden), recommends drainage of the knee-joint, instead of excision, in the following cases: 1. In acute serous inflammation, in the rare event of there being abnormal pain of sufficient severity to affect the patient's general health. 2. In acute purulent inflammation of the joint, as soon as there is distinct fluctuation; in the rare case of osteo-myelitis, involving one or both epiphyses; in the purulent inflammation which may complicate pyæmia, pneumonia, acute infectious diseases, and phlegmonous erysipelas of the lower extremities. 3. In chronic serous inflammation of the joint. 4. In fungous inflammation—(*a*) where the fluid secretion in the joint exceeds the fungous granulation in amount, and where the cartilage is still intact; (*b*) where there is excess of fungous granulation, but where caries is still absent. The presence of caries is a contra-indication for drainage, and an indication for excision. Scriba lays down the following maxim, in opposition to those British surgeons who counsel very early excision: "The earlier chronic fungous inflammation of a joint comes under treatment, the better hope is there of giving the patient a useful movable knee joint, by means of drainage." It should be stated that Scriba only speaks of drainage applied to a joint *which is opened at the moment the tube is inserted*, and not to one in which there is a previous wound, either surgical or accidental, of some standing. The operation, as performed by Scriba, is briefly as follows: An incision, two or three centimetres long, is made on either side of the patella, down to the joint, and a drain-tube inserted. If the bursa, under the extensor muscles, communicates with the joint, as a rule, no further incision is needed. In the rare case in which it is isolated, an incision is made down through the quadriceps femoris, and a short tube inserted. The operation must be carried out *with the strictest antiseptic precautions.* Before the drainage tube is inserted, the joint is "swabbed" with a soft sponge, in acute cases using a five per cent. solution of carbolic acid; in chronic cases, or where there is fetidity, a twelve per cent. solution of zinc chloride. The tube is then put in, and the joint washed out through it with carbolic acid (two and a-half to five per cent.), until the solution runs clear. During the injection, the joint must be gently kneaded with the hand. In acute inflammation, the tube must be removed as soon as possible. The greater part may be taken out after the third or fourth dressing, if the wound is perfectly sweet, and the remainder on the tenth to fourteenth day. If the secretion does not quickly diminish, the joint must be washed out again with carbolic acid, and the drainage somewhat prolonged, but the whole tube must never be left in after the tenth to twelfth day for fear of irritating the cartilage on which it lies. In chronic cases, or when fungosity is present, the tube must be allowed to lie across the cavity of the joint for twenty or thirty days, in order to stimulate the lining membrane.—(*Med. Times and Gazette*, Sept. 15th, 1877.)

EPITHELIOMA OF THE CERVIX UTERI.

(CLINIC BY PROF. THOMAS. NEW YORK.)

Before bringing in the first patient whom I have to show you to-day, gentlemen, I wish to present to you a specimen, for which I am indebted to the kindness of Dr. B. F. Dawson. It is, as you perceive, a mass of tissue, which, upon one side, has the appearance of a piece of cooked meat, as in reality it is; while upon the other side, it presents a gangrenous and putrefying surface. The specimen is taken from a case of the same character as I have shown you a great many times here already, and which, unfortunately, I shall, no doubt, have the opportunity of showing you many times in the future, viz., cancer of the cervix uteri. The patient from whom this was removed presented the well-known symptoms, the cachexia and the profuse hemorrhages, alternating with watery discharges, to which I have so often called your attention.

In considering whether to operate in these cases, it is well to observe the general rule, that, if it is

possible to remove the whole of the diseased surface, it is commonly a wise procedure to do so. If such is the condition of the parts, the operation is not attended by much danger, and it at least accomplishes the good result of a considerable retardation of the progress of the disease.

Unfortunately, it is exceedingly rare for a patient to be entirely cured in this way, as in the course of a year, at most, the affection usually returns. Were I to give my own experience, I should say that it makes its reappearance, as a rule, within six months, and very often in three months after the operation.

If on the other hand, the disease has spread so as to involve a considerable portion of the uterus, or the walls of the vagina, still less can be accomplished by the operaton of removal, and it should only be undertaken for the sake of checking severe hemorrhage, or averting to some extent, the danger of septicæmia from such a large sloughing mass in the vagina. At best, it is purely a palliative measure; but it may have the effect of somewhat prolonging life, or at least, of making the patient more comfortable.

Eight years ago I removed a cervix which was pronounced, by Professor Delafield and other competent microscopists, to be cancerous. One year afterward the patient married, and up to the present time (for she still returns annually to show herself at the clinic) there has been no return whatever of the disease. But this is absolutely the only case where I have operated, in which the carcinomatous growth has not reappeared; and the number of my operations for this affection must be pretty large by this time, as I perform at least five or six of them every Winter. You may, perhaps, ask why cancer of the uterus should be so different in this respect, from that situated in many other parts of the body, and I will explain this to you. When the seat of the disease is upon any of the external parts, the patients's attention is directed to it (as, for instance, by a little lump in the breast), at a very early stage, and before the general system has become involved.

In the uterus, however, cancer goes on developing for months, entirely without the knowledge of the patient, since any indefinite symptoms to which it may give rise are very apt to be attributed to the change of life, if the patient is approaching the climacteric period. At last, during coitus, and without any apparent cause, there comes a profuse gush of blood, and the patient, becoming alarmed, seeks medical advice. The physician, after making an examination, reveals to her the nature of the case, if he thinks best, and tells her that the disease has been developing for six months, or perhaps a year. The truth is, that the cancerous growth has been out of sight, and, therefore, out of mind, and it has now passed beyond the stage when amputation of the cervix would probably have cured it.

Some years ago, the famous Lisfranc reported hundred cases of successful amputation of the cervix, followed by the most brilliant results. Some of them were cases of malignant disease, and some of hyperplasia of the organ due to some other cause, and his success at once brought the operation into great repute. Not long afterward, however, his interne published a second report of the same cases, which showed that Lisfranc's statements were frequently false, and that a large number of the cases had died soon after the operation. This occasioned a notable controversy in medical circles in Paris, and had the effect of throwing a great deal of discredit on amputation of the cervix, which has prevailed in the profession until quite recently. When performed by the knife or scissors, it is apt to be exceedingly dangerous, from the severe hemorrhage almost unavoidably occasioned by it, and at the present day I hold that it is very wrong to run the risk of using such means, unless some particular end is to be gained by so doing. By far the best and safest method of removing the cervix is by means of the galvano-cautery. A platinum wire, the tension upon which is regulated by a screw, is made to encircle the cervix, and imbeded in the tissues at the point where the amputation is to be made, which should be entirely above the seat of disease, if possible. When the wire is brought to a sufficient temperature by the electrical current, it is slowly tightened, and at the same time continuous and some what forcible traction is made upon the portion of cervix to be removed, by means of a strong pair of sharp-toothed forceps. This latter procedure has the effect of producing a hollow-shaped stump, and in this way a great deal more of the tissues of the uterus is removed than if the amputation is made straight across. In this operation there is almost no danger, and I have seen a bad result follow it in but one out of the very large number of cases in which I have employed it. This result was pelvic cellulitis; but even in that case there was some doubt whether the cellulitis was really caused by the operation. The hemorrhage from it is exceedingly slight, frequently not amounting to ten drops altogether; and Dr. Byrne, of Brooklyn, who has, perhaps, used the galvano-cautery more frequently in the amputation of the cervix than any one else, attributes the remarkable immunity from septicæmia which has been noticed after it to the fact that the absorbent lymphatic vessels are all closed by the operation.

Recently, I was summoned to a neighboring city to testify in a suit for malpractice brought against a physician of high standing, by a patient in whom he amputated the cervix five years ago with the galvano-cautery. The condition on account of which the suit was instituted was the closure of the uterine canal (which prevented the escape of the menstrual blood), in consequence of the operation; but I was not called upon to give my opinion in the case, for the reason that the judge very wisely gave his decision in favor of the defendant before

it came to trial at all. These contractions, I may explain, follow the use of the galvano-cautery in the majority of instances. Some writers claim that atresia of the uterine canal invariably results from amputation by it; but, from my own experience, I can emphatically deny this. Only three days ago, I saw, with Dr. J. B. Hunter, a patient in whom we performed the operation by this means some little time ago (on account of an exceedingly long and conical cervix, which actually projected from the vulva and entirely prevented sexual intercourse), and we found the canal quite as large as in the ordinary normal uterus. In perhaps forty out of fifty instances, however, there will result more or less narrowing, though it is not very common to find complete closure of the canal after the operation. But the advantages of the galvano-cautery in appropriate cases, it must be acknowledged by all, far outweighs any such disadvantage as this; and even if there is complete atresia of the canal, it is not at all a difficult thing to remedy, by means of incision and the retention for a short time, of a plug in the os uteri. Surgeons do not give up the amputation of limbs because once in a while, without any fault of theirs, the patient afterward suffers from neuralgia of the stump, or is unable to wear an artificial limb upon it; and neither should we give up amputation of the cervix by the galvano-cautery because atresia occasionally results from it.—*Med. and Surg. Reporter.*

PROGNOSIS AND TREATMENT OF DIPHTHERIA.

Dr. Lewis Smith, Clinical Professor of Diseases of Children at Bellevue Medical College, observes (*American Journal of Medical Sciences* October) that the endemic persistence of this disease in some localities, as New York, and its frequent epidemic outbreaks in country villages and towns, have aroused great attention as to its nature and treatment. No disease also, he adds, stands more in need of all the light which science and experience can throw upon it, not only on account of the divergence of views which prevails respecting it, but because of the frequency with which the prognosis is belied. This uncertainty of prognosis, he believes, depends much upon the fact that diphtheria terminates fatally in several distinct ways, so that while the patient may seem safe with respect to the more manifest and common conditions of danger a fatal result may still occur from some unseen and unexpected cause.

Death may result from (1) diphtheritic blood poisoning; probably also from (2) septic poisoning produced by absorption from the under surface of decomposing pseudo-membrane—especially when this is extensive, deeply embedded, and attended by an offensive effluvium. Cervical cellulitis and adenitis, which may cause very considerable swelling of the neck, appear to be often, if not usually, due to septic absorption from the lower surface, the inflammation extending from the absorbents to the glands and connective tissue. Considerable swelling of the neck, therefore, seldom occurs in diphtheria or scarlatina without manifest symptoms of toxæmia, and is to be regarded as a sign of its presence. (3) Obstructive laryngitis; (4) uræmia; (5) sudden failure of the heart's action, either from the anæmia and general feebleness, from granulo-fatty degeneration of the muscular fibres of the heart, which is liable to occur in all infectious diseases of a malignant type; or from ante-mortem heart-clots. (6) Suddenly developed passive congestion and œdema of the lungs, probably due to feebleness of the heart's action, or to paralysis of the respiratory muscles. Death may occur from this cause during what seems to be convalescence. The physician is less likely to err who bears in mind the possibility of these various terminations; and Dr. Smith believes that the condition of the urine is too infrequently and too superficially examined, seeing that it often contains a large quantity of albumen.

"Among the symptoms which render the prognosis unfavorable are repugnance to food, vomiting pallor, with progressive weakness, and emaciation from the blood-poisoning; a large amount of albumen, with casts in the urine, showing uræmia, to which the vomiting is sometimes, but not always attributable; a free discharge from the nostrils, or occlusion of them by inflammatory thickening and exudation, showing that a considerable portion of the Schneiderian membrane is involved: hæmorrhage from the mouth or nostrils; and obstructed respiration. One, at least, of these has been present in most of the fatal cases which have fallen under my observation."

It is remarkable, Dr. Smith observes, that concerning a disease which has been so long under wide-spread and able observation, such wide discrepancy of opinion as to treatment prevails. This has arisen in part by the different views taken of the nature of the disease, but still more is due to the unreliability of the statisiscs of treatment, owing to the very varying types the disease presents even in the same epidemic, so that while some cases resist all measures, others scarcely require treatment at all. He believes that the germ theory of diphtheria has done immense harm by concentrating attention so much on local and general antiseptic treatment, which, as far as his experience goes, proves of little use; and he is of opinion that the fact of the treatise in Ziemssen's Cyclopædia which propagates this doctrine, having been published before Sanné's more useful book, has led to great mischief. Experience has, however, brought on a reaction, and

practitioners are beginning to learn that constitutional treatment is of as paramount importance in diphtheria as in scarlatina. As the result of his own large experience, he lays down the following propositions :—1. In ordinary cases the poisonous principle of diphtheria enters the blood through the lungs, and after incubation, varying from a few hours to seven or eight days, gives rise to the symptom of the disease. 2. Facts do not justify the belief that the system can be protected by antiseptic or preservative medicines, given internally. 3. There is no known antidote for diphtheria, in the sense in which quinia is an antidote for malarial disease. 4. Diphtheria, like erysipelas has no fixed duration. It may cease in two or three days, or continue for as many weeks, the specific poison acting more intensely at the commencement than at a latter period; so that diphtheritic inflammation—as laryngitis, *e. g.*—is more severe and dangerous at an early period than when the disease has continued a few days. 5. The indication of treatment is to sustain the patient by most nutritious diet, tonics, and stimulants, employing other measures as adjuvants as the indications arise, the same rules of treatment being for the most part appropriate as are applicable in scarlatina. Local treatment should be unirritating and designed to prevent putrefactive changes and septic poisoning. Irritants which produce pain lasting more than a few minutes, or which increase the area or degree of redness, are hurtful, and increase the extent and thickness of the pseudo-membranes.

The most nutritious and easily digested food should be given, the preservation of the patient's inclination for food being of vital importance. Beef-tea or the expressed juice of meat, milk, with farinaceous substances, etc., should be given every two or three hours, or to the full extent without disturbing digestion. Failure of appetite and refusal of food are justly regarded as most unfavourable signs. In malignant diphtheria or scarlatina patients are allowed sometimes to slumber too long without nutriment. It is the slumber of toxæmia, and should be interrupted by feeding at stated times. *Stimuli*, as observed by Sannè, are indicated in proportion to the gravity of the case ; and while mild cases do well without alcohol, this is required in all cases of a severe type, and should be given in large and frequent doses, wherever pallor or loss of appetite, or of strength and flesh, indicates danger. Of *tonics*, none answer the purpose better than cinchonidia and quinia. Concerning the doses of the latter, the greatest difference of opinion prevails, according as its antipyretic or its tonic effects are sought to be obtained. But high febrile action calling for antipyretic doses of three, five or more grains, are seldom observed after the first forty-eight hours, while at a subsequent period the tonic dose or two grains every two or four hours will be found sufficient. Great difference of practice also prevails with respect to iron, some using it exclusively in large doses, while others employ moderate doses as an adjuvant to vegetable tonics. The formula which Dr. Smith prefers, say for a child five years old, is the following :—℞. Quinia sulph. ʒ ss., elixir adjuvantis or elixir taraxici co. ʒ ij. Give one teaspoonful every two or four hours, and one teaspoonful of the following hourly between—℞. Tinct. ferri chlor. ʒ ij., pot. chlor. ʒ ij., syrup ʒ iv. The tonic effect of the iron is not impaired by the chlorate of potass, which is added on account of its action on the inflamed surface. The citrate of iron and ammonia alone, or combined with carbonate of ammonia, may be given in two-grain doses, in syrup, instead of the above, when the inflammation of the fauces has considerably abated or is moderate. As the disease begins to abate the intervals between the doses may be lengthened, but the tonic should not be entirely discontinued until the patient is far advanced in recovery, on account of the dangerous sequelæ which originate in an impoverished condition of the blood.

The object in *local treatment* should be to reduce the inflammation of the mucous surfaces, and destroy the diphtheritic poison and contagious properties in the pseudo-membrane, and to destroy the septic poison, and prevent its absorption should any form. Forcible removal of the pseudo-membrane, irritating applications, the use of a sponge or other rough instrument for making the applications, should be avoided as likely to do harm. These should be made with a large camel's hair pencil, or (better for most mixtures employed) with the atomiser. The hand atomiser is very useful, but the constant spray of the steam atomiser is very effectual, and is preferable in some cases. Dr Smith employs the following mixture : — 1. Salicylic acid ʒ ss., glycerine ʒ ij., lime-water ʒ viij. 2. Carbolic acid gtt. xxxij., glycerine ʒ ij., lime-water ʒ vj. 3. Carbolic acid gtt. xxxij., chlorate of potash ʒ iij., glycerine ʒ iij., water ʒ v. Half a dozen or a dozen compressions of the bulb of the hand atomiser cover the surface of the throat more effectually with the liquid than can be done by several applications of the brush, and it is usually not dreaded by the patient. Diminution in size of the pseudo-membrane under the use of the spray is a favorable sign ; but if it do not diminish, its presence can do little harm if properly disinfected. In many cases the spray suffices for local treatment, but this mixture (carbolic acid gtt. viij., liq. ferri subsulph. ʒ ij.-ʒ iij., glycerine ʒ j.), applied by a large camel's hair pencil, is also very effectual, converting the pseudo-membrane into an inert mass, and putting a stop to all movements of the bacteria which swarm in it. It may be used two or three times a day between the spraying, or oftener without this.

Pseudo-membranous laryngitis, the most formidable symptom of diphtheria, is best treated by the spray. Of twenty-five cases treated by Dr. Smith, seven recovered by inhalation of spray, and two by tracheotomy. When the *Schneiderian membrane* is especially affected, being more sensitive than the fauces, it requires a milder treatment. The best consists in injecting into the nostrils, by means of a small-syringe, every third or fourth hour, one or two teaspoonfuls of a mixture formed of carbolic acid gtt. xxxiv., glycerine ʒ ij., and water ʒ vj., using it of the temperature of the body, the head being thrown back, and the eyes covered with a cloth.—*Medical Times and Gazette.*

IRON IN EPILEPSY.

In the October issue of the *Practitioner*, Dr. Gowers adduces strong evidence in favour of the use of iron in many cases of epilepsy, a disease from which the drug has been, perhaps, too rigidly proscribed. In a large number of cases he has found that iron has no recognisable influence upon the affection, one way or another; but there remain others in which it may be employed with temporary and even permanent benefit. In those cases in which its action is transient, there is, at first, a marked diminution in the number and severity of the fits, but if the administration of the metal be pushed, effects which may be regarded as injurious ensue, the fits reappearing with all their former severity. However, there are some cases in which its action is direct and permanent—in fact, curative. Such cases—those in which iron does most good—are chiefly those which stand on the borderland between epilepsy and hysteria; but even in some purely epileptic cases iron has been found to have produced permanent results. Dr. Gowers points out that anæmia is no indication for the use of iron in these cases, and suggests that it may have a direct influence upon the nervous system, like zinc, silver, and other metals, quite apart from its hæmatinic properties. He supports his opinion by brief notes of a few cases from his out-patient practice at the National Hospital for Paralysis and Epilepsy, guarding himself against drawing too rash conclusions by bearing in mind the sources of fallacy that may arise in testing any therapeutical remedy in epilepsy, such as the natural variation in frequency of the fits, and the influence of the bromide, under which all epileptics are mostly placed. The frequency with which fits increase on withdrawal of the bromide does not allow of any conclusions being drawn as to the efficacy of iron when it is substituted for the latter drug. Iron should, then, be given in cases where no other treatment has been tried, or if the bromide be taken it should be added to this, and the effect noted. Thus, in one case where the bromide had not done much good, the additions of iron caused a cessation of the fits, which, however, recurred after a time. In another case, that of a girl seventeen years of age, who had suffered from several fits daily from the age of three years, the bromide alone caused a diminution in the frequency and severity of the fits. At the end of three months belladonna was added to the bromide, and the fits ceased, and then she took quinine and iron for six months without having any recurrence. A third case, that of a woman forty-eight years of age, the subject of attacks of *petit mal*, occurring at the catamenial periods, was temporarily cured by the administration of the perchloride of iron. At the end of eighteen months, a recurrence of the attacks was met successfully by the bromide, and an interval of twelve months of freedom gained; a second recurrence took place, and a return to the iron treatment again proved effectual. One other case may be mentioned from this paper; it was that of a man twenty-three years of age, who for five months had been subject to severe epileptic attacks, mostly noctural. He was treated with ten minims of tincture of perchloride of iron three times daily, and continued to take it for six months, and during this time had only two attacks, one in the first and one in the third month of the treatment. After the iron had been left off he remained free from attacks for four months, when the fits recurred, and in three months were "as bad as ever." A return to the perchloride at once produced a freedom from attacks during the time he continued to take it. Two instances of attacks with co-ordinated spasm—lessened or arrested by the use of iron—are also given.—*The Lancet.*

PROGRESSIVE PERNICIOUS (OR IDIOPATHIC) ANÆMIA; RETINAL HÆMORRHAGES AND DOUBLE OPTIC NEURITIS; MICROCYTHÆMIA; EPISTAXIS; DEATH; NECROPSY.

(*Under the care of Dr. Stephen Mackenzie.*)

The following careful record of a rare malady will doubtless be read with interest.

W. J.——, aged ten years, a schoolboy, was admitted on Sept. 5th last. His father and mother were alive and healthy, and had several other children, who enjoyed exceedingly good health and looked quite well. The patient had scarlet fever, measles, and whooping-cough, previous to his fourth year. He had had good health up to three months before admission, being, however, rather subject to coughs and colds. Had lived in fair-sized rooms in the east-end of London all his life.

Three months before admission, he began to get white, like wax or a dead body. His father

said at the same time he began to feel weak, and could not run about. He was drowsy and giddy, the giddiness coming on especially on getting up; it was not so bad when he lay down. He had a constant frontal headache, not severe, but gradually getting worse. His head ached especially on getting up. His head used to perspire so much as to wet the pillow, but the rest of the body was free from perspiration. He had frequent nausea, but did not vomit. Two months before admission, he left school, but went out occasionally, though he did not care for the exertion. He never felt warm. His appetite was good. One month before admission, had to take to his bed, he felt so sick and giddy, and could not walk about. He complained of ear-ache, and had some discharge from right ear. He had to go home from school occasionally, the pain in the ear was so great; it lasted on and off for about a month. His bowels were regular. His face was thought to be puffy in the morning, but the hands and feet were never noticed to be swollen. His symptoms all became progressively more severe until admission. Though nausea was constant, his mother said he had only vomited once after some "oil."

His condition on admission was as follows:—A dark-haired boy with brown irides, somewhat wasted. Skin everywhere extremely pallid, having a waxy or ivory-like appearance. No œdema of face. Lips, gums, tongue, mucous membrane of nose, and conjunctivæ very pale. Chest well formed; lungs normal. Cardiac impulse half an inch outside and an inch below left nipple, heaving; a systolic thrill over cardiac area; cardiac dulness extended from left margin of sternum upwards to third rib; and to left half an inch outside nipple line. Systolic murmur loudest at apex and bottom of sternum, but heard over aortic and pulmonary valves. Hepatic dulness from fifth rib to margin of thorax. Splenic dulness not increased; spleen cannot be felt. Lymphatic glands just to be felt in left axilla under jaw, behind right ear, and in groins; little, if not at all, enlarged. Hearing in left ear good, and in right somewhat defective; has a little pain in vertex. Pupils dilated.

Ophthalmoscopic examination.—Right eye: There was much swelling of the optic nerve. The edge was nowhere visible. Both arteries and veins distended, but very pale; the latter very tortuous; both lost in places in exudation. The centre of the disc, where the exudation was thickest, had a bluish tinge. There was one or two small hæmorrhages on the disc itself. Around the disc the retina appeared uneven and irregular. At some parts it was very transparent, and through it could be seen choroidal vessels and pigment; at other parts it was intranslucent, and the vessels were hidden. In the left lower quadrant, beneath the yellow spot, was a large, irregularly-shaped, sharply-defined hæmorrhage of deep red tint, occupying the whole field of the erect image in the almost fully dilated pupil. It did not appear to be connected with any vessel. Scattered over the rest of the retina were other smaller hæmorrhages. There were no white patches or glistening specks. Left eye in all respects the same as right, wanting only the very large hæmorrhage. Microscopical examination of the blood showed great variability in the size of the coloured corpuscles. There was a considerable number of small coloured corpuscles not more than one-quarter the size of the normal ones. Most of the small ones were spherical in shape, and of the same tint as the larger ones; a few of them presented tail-like processes. The remaining coloured corpuscles had their natural tint. There was no excess of colourless corpuscles. Urine 30 oz., acid; clear, sp. gr. 1015; no albumen; contained 7 per cent. of urea, or 6.72 grms. in twenty-four hours. Pulse small and soft; temperature, 99°F.; respiration easy, not accelerated.

Sept. 11th.—Vomited last night and this morning.

16th.—Nose bled during night; handkerchief stained with pinkish blood.

18th.—Epistaxis; murmur very distinct, most distinct over pulmonary artery.

24th.—Murmur conducted well into axilla; strongly-marked pulsation of carotid arteries; loud bellows-sound over veins of neck.

29th.—Tint of skin changing; colour less yellow, more white; systolic murmur all over heart.

Oct. 1st.—Nausea and vomiting this morning; felt giddy. Could not sit up when his bed was made. Temperature, which yesterday was 98·8°, has risen to-day to 103°.

4th.—Bleeding from gums; blood very pink and watery; feels lively.

16th.—No sickness or headache; vision $\frac{20}{40}$, reads 1½ Snellen with right eye; $\frac{20}{40}$ and 1½ Snellen with left eye. Still marked optic neuritis, with hæmorrhages in both retinæ. The large patch in the right eye but little altered. Temperature 99°.

25th.—Sickness and headache.

Nov. 12th.—Distressing vomiting, bringing up a good deal of fluid.

14th.—Nose bled this morning—half a porringer full.

18th.—Very sick; headache.

21st.—Vomiting comes on if he takes much food; his appetite has been failing for the last fortnight.

27th.—Very sick; brings everything up; is very feeble.

28th.—Distressing vomiting; surface somewhat cold; pulse scarcely to be counted. Says he knows he is dying, and asks to be taken home. Was removed by his parents, and taken a distance of about two miles in a cab. Did not complain of pain or fatigue on the journey; conversed with his parents and brothers and sisters. Died at 10 p.m.; intellect clear and tranquil to the last.

The patient was treated with iron, and later with iron and arsenic combined. He had a simple diet, and a small quantity of wine. ' His urine was examined almost daily; it averaged thirty-five ounces, was clear, acid, and free from albumen, and he passed from six to seven grammes of urea daily. The blood was examined several times; it always presented the characters described on admission.

Necropsy, at patient's home, forty-two hours after death.—Body a good deal wasted, but not emaciated. Skin much paler than natural, but not so much so as during life; it had a waxy appearance. Mucous membrane of mouth, nose, &c., very anæmic. On opening body well marked panniculus adisposus was seen, the fat being of canary-yellow hue. Muscles of natural colour. Pericardium contained excess of clear straw-coloured fluid. Heart, not firmly contracted, larger than natural, apex formed by left ventricle. Both ventricles contained medium-sized clots of pale, reddish-brown colour, like meat jelly, and some fluid blood. Valves and orifices healthy; walls slightly thickened. Muscle of both ventricles of pale drab or fawn colour, with pale-yellow mottling (fatty degeneration). Lungs exceedingly pale; a little watery fluid could be squeezed out. Liver pale for the most part, but with patches of nutmeggy appearance. Spleen of natural size, firm and red. Kidneys: left very anæmic; right venously congested; adrenals normal. Stomach thin, but not excessively so; mucous membrane congested and ecchymosed. Small intestine very thin, mucous membrane pale. Large intestine had well marked appendices epiploicæ; presented no changes except thinness. Pancreas natural. Mesenteric glands small. Retro-peritoneal lymphatic glands small and healthy-looking. Lymphatic glands of axilla natural. Thyroid gland rather large, but natural in appearance. Aorta of natural calibre, but very thin, pale, and inelastic: no changes in endarterium. Skull well shaped but thin. Brain exceedingly anæmic, otherwise normal. Periosteum removed from petrous bones: no discolouration or sign of disease. Orbits opened; contained abundant fat. Backs of eyes removed; hæmorrhage seen in retinæ. Pieces of clavicle and rib removed; marrow of a distinctly red colour.

Numeration of the blood-corpuscles in the fluid blood removed from the right ventricle was made some time after the necropsy by means of Dr. Gower's hæmacytometer. The number of coloured corpuscles was 1,940,000 per cubic millimetre, or 38·9 per cent. of the natural number.

Remarks by Dr. MACKENZIE.—The case is a very characteristic example of idiopathic essential or progressive anæmia. The patient was, however, much below the age at which the disease is usually seen. No exciting cause could be discovered. No history of shock or fright was elicited. The diminution in the size of the coloured blood-corpuscles (microcythæmia) was well-marked, but no nucleated corpuscles were detected. Hæmorrhagic extravasations into the retinæ are usually noticed in pernicious anæmia, and were well marked in this case. According to Litten, they have no diagnostic value in distinguishing this form of anæmia from others, for he has found retinal hæmorrhages in anæmia from uterine cancer and hæmorrhage, menorrhagia, and hæmatemesis. I have examined a very large number of eyes of persons suffering from cancer, chlorosis, and anæmia from other causes, without finding hæmorrhages; but, not having examined from the anæmia standpoint, I am not prepared to dispute Herr Litten's assertion. A point of much interest in the case was the presence of well-marked double optic neuritis. I am not aware of optic neuritis having been described, though I dare say it has been observed, by other observers in connection with pernicious anæmia. Many (*Centralblatt f. d. Med. Wissensch., 1875, s.* 675), in an account of a case, speaks of the papilla being deformed, and of the whole retina being cloudy; but it does not appear from his description of the ophthalmoscopic or microscopic appearances that there was neuritis. In my case the swelling of the disc was considerable, and the vessels were in places buried in exudation. The veins were very tortuous, as usual in neuritis, but of pale colour, with a broad light streak. The existence of optic neuritis caused hesitation in diagnosis in some who saw the case. Taken in conjunction with the pain in head, and discharge from ear with deafness, it certainly suggested coarse cerebral disease. But the headache was not so severe as is usual in intracranial tumour or abscess, and when first seen, although optic neuritis was present, there had been no purposeless vomiting. Moreover, the assumption of coarse intracranial disease did not explain the extreme anæmia. The occurrence of microcythæmia assisted me to the diagnosis of progressive pernicious anæmia, and the subsequent progress of the case, the vomiting, febrile attacks without assignable cause, the recurring epistaxis, and bleeding of the gums confirmed me in my opinion. Arsenic, which has been so useful in Dr. Byron Bramwell's hands, was administered in the form of Fowler's solution, without any amelioration of the symptoms. The post-mortem appearances were those usually observed. Dr. Wilks, than whom probably no one has had greater experience in this disease, says that usually no coagula are present in the heart. In this case clots were present in both ventricles, but quite peculiar in character. The enlargement of the heart (undoubted, though the organ could not be weighed) remains unexplained. The examination was made by candle-light. The marrow of the rib and clavicle was observed to be red. I have not yet examined it microscopically. The

case will be published in detail when a histological examination of the retina and all the organs have been completed.—*Lancet.*

DANGER OF SALICYLIC ACID IN KIDNEY DISEASE.—Salicylic acid still constitutes the theme of discussion both in the Academy of Medicine and in the Clinical Society of Paris. Professor See seems to be the chief champion of this new remedy. According to his teachings it is *the* great *specific* in gout, rheumatism and rheumatic gout: while it may be used with especial benefit in typhoid fever, erysipelas, malarial fever, small-pox and all affections in the clinical history of which *ferments* have a prominent place. He gives it alone or in combination with soda, *heroically*, in large and frequently repeated doses, and with marvellous results, so marvellous, in fact, that Ricord, who has seen some of his cases, was constrained to protest against his conclusions and to style him an enthusiast and a dreamer. Although it is evident that See speaks more for professional notoriety than in the interests of science, he has certainly demonstrated that salicylic acid has a far more extensive range of applicability than was previously supposed, and that it is an exceedingly potent and valuable remedy.

All who have employed salicylic acid must have noticed that it agrees with some patients far better than with others, that there is a certain percentage of individuals upon whom it immediately produces toxic effects. At a recent meeting of the Clinical Society of Paris, M. Bouchard, in discussing a case of this kind, reported by a colleague, explained the anomaly by saying that under such circumstances, the agent was not eliminated by the kidneys, as is naturally the case, and that the intoxication which manifests itself indicates some disease or disturbance of those organs. He, therefore, insists upon the following considerations in actual practice, viz: not to prescribe salicylic acid and its preparation in cases where renal disease exists, since they constantly accumulate in the system, and insure the speedy development of toxic symptoms: to bear in mind that the non-elimination of salicylic acid and its preparations, *i.e.*, the development of toxic symptoms, indicates an impermeability of the kidney, even when the ordinary signs of nephritic disease are absent. My own experience confirms these conclusions; for I have found that in albuminuria salicylic acid is not supported and really seems to intensify the disease.—Dr. Warren, *North Carolina Med. Jour.*

EXTIRPATION OF THE LARYNX.—Dr. Foulis, of Glasgow, records the eleventh case in which the larynx has been removed for the relief of disease. This operation was first performed by Billroth in 1873, for cancer of the larynx. Two months after the operation the patient was discharged cured and able to speak clearly, though monotonously by means of Gussenbauer's tube. Since then various Continental surgeons have performed the operation for relief of malignant disease with varying success. Six of the recorded cases ended fatally; two from the return of the disease at three and six months respectively; two from pneumonia at four and fourteen days; one from gangrene of the lung on the fourth day; and one on the sixth day from collapse, due to shock, insufficient food, and imperfect protection of the trachea from the introduction of blood and secretions. Of the remaining cases, one was a very partial operation for stricture in syphillitic disease, the patient dying eleven months afterwards from the constitutional affection; two have been but partially reported, and the ultimate issue cannot be stated. Lastly, the case published by Prof. Bottini is the only one on record in which, six months after complete excision of the larynx, the patient was in a quite satisfactory condition.

In the present case the disease had been twice removed by external excision, and now extirpation of the entire larynx was decided upon as the only means of affording relief. The incision was made in the median line, commencing at the lower edge of the hyoid bone and extending an inch below the cricoid cartilage. Immediately on its division, the trachea was fitted with a syphon-shaped leaden tube. This answered the double purpose of preventing the escape of blood into the trachea, and of allowing respiration to be carried on at a distance from the field of operation. The edge of the trachea was fixed to the skin by two long wire sutures passed deeply into the tissues. No other sutures or dressings were used. The leaden tube was left in for the first twelve hours, afterwards tubes of gutta percha, and finally of vulcanite were used. These tubes filled completely the trachea and effectually prevented the entrance of anything but air. The wound was not irrigated on account of the gulping and irritation which would be set up, but all the discharges were carefully sucked up by a wide-mouthed glass-syringe. The air around the bed was kept heavily carbolized by means of a small current of steam from a kettle containing carbolic acid solution. On October 8, twenty-eight days after the operation, the wound had contracted to the size at which it is desirable to keep it, and a Gussenbauer's voice apparatus is being moulded to fit it.—*The Lancet*, Oct 13, 1877.—*Med. Record.*

ATROPINE IN NIGHT SWEATS OF PHTHISIS.—OETTINGER (*Wiener Med. Presse*, 1877, No. 34), employed sulphate of atropia in 45 cases of phthisis. The solution contained one and a fifth grains to the ounce of distilled water, of which 10 to 20 drops were given daily. In 12 cases the sweats disappeared with the first dose, and did not return. In 18 cases the sweats reappeared when the medicine was suspended, and he found it necessary to

renew for a long time, with care to have occasional intervals of four to eight days. The only disagreeable results were slight pruritus of the neck, and dilated pupils. He concludes the influence of sulphate of atropia on the temperature is absolutely negative. It also has no effect in checking the progress of the disease, except so far as the night sweats are lessened, and the invalid rests better.—*N. Y. Hospital Gazette.*

COLLODION FLEXILE IN CASES OF ECZEMA.—Henry Lawson, M.D. Assistant Physician to, and Lecturer on Physiology in St. Mary's Hospital, says :

In my hands, two bad cases of eczema—E. genitale and E. capitis—collodion has shown itself so valuable a remedial agent that I lose no time in publishing the result, in order that others may try it, and see what the consequences are likely to be. I shall now describe one of the cases.

The first case was one of E. genitale. The patient, M. E——, was a woman aged about forty-seven years, married, and the mother of several children. She was a florid woman, of an active temperament, well nourished, of moderate habits of life, tolerably cleanly, and with a pulse strong and full and about 74 in the minute. She had lost her courses about two years ago ; and, indeed, her general appearance was not such as led me to commiserate her very much. However, an examination of the patient showed that she had been suffering a good deal. The whole of the neighborhood of the perineum, of the parts about the vulva, and of the inner margin of both thighs, were covered with an eruption. And what was its nature? It is difficult to describe it. It had a reddish or reddish-purple aspect, which was, of course, caused by the injection of the parts with blood ; and it could be seen that certain parts were slightly raised ; while over the whole surface was a sort of semi-transparent glutinous liquid mass, with here and there some scaly particles of epidermis. It did not smell badly, though the entire amount of surface exposed must have been quite a square foot ; but it was accompanied by great pain, heat, and secretion of liquid matter. Indeed, the patient declared that it made her life a perfect misery.

Well, I first tried tar water, and with some success, but not enough, for after a fortnight she was nearly as bad as on the first day I saw her, and she had been fourteen months suffering under this disease. So I resolved to try the collodion flexile. I placed her on the sofa. And proceeded to literally cover the diseased parts with collodion, and then I put a second layer over the first. I next directed her to put on this material twice or oftener, if needful, every day, and to come to me in a week and report progress. At the same time I forbade her to take tea, coffee or malt liquors, but to substitute cocoa or milk, and to take a little whisky if she desired it. Finally, I ordered her a compound colocynth pill, with podophyllin, to be taken occasionally at night.

When, at the end of a week, this patient came to me, I was absolutely astounded at the progress she had made. There was not at all the same amount of secretion over the surface, and it seemed paler, while it had not extended in the least degree. She said she felt she was getting better, and that it was not nearly so painful as it had been. Of course I simply repeated the prescription, and when she came again in a fortnight, all appearances of liquid on the surface had disappeared. The extent of the affected parts had diminished, so had the pain, which was now nearly *nil.* In fact, the remedy had acted most satisfactorily, and there was nothing to do but repeat it. This course was followed out by the patient for about two months, at the end of which she presented herself completely cured of the painful E. genitale.—*London Lancet.*

BREECH PRESENTATIONS.—The relative proportion of breech presentations to presentations of other parts of the fœtus, varies considerably, as reported from different institutions. Scanzoni gives the number from the lying-in asylums of Prague and Wurzburg as about one in fifty-six. Grenser, in his report of the lying-in institute of Dresden for six years, one in sixty-six, while Ramsbotham, jr., from the Maternity of London, estimates them as about one in thirty-five. I have been unable to find any reliable statistics as to the proportion of still-born children in these presentations, but it is known to be large.

The progress of labor is much slower, both in the first and second stage, when the breech presents than it is when the head presents. From the nature of the presenting part dilatation is not so readily accomplished, and the parts do not adapt themselves so readily to the pelvic cavity.

The breech is more liable to be arrested in its descent than the head. The arrest of the breech, especially in a primipara, becomes the occasion of great and protracted suffering to the mother, very probable death of the child, and a source of great anxiety to the physician ; they are, in fact, formidable cases to treat, and the physician having seen one becomes very desirous to avoid another. Inasmuch as we can never tell when we are going to have trouble in these cases, it is better to prevent the breech becoming arrested if possible. The rule I have followed in my practice for many years now is, in all cases of breech presentations at full time, to bring down a foot. This allows complete control of the labor ; we can hasten it as the exigencies of the case may require. Dr. Robert Barnes, of London, adopted this mode of treatment in cases where the breech becomes arrested. Would it not be

better to do the same thing earlier, and thus prevent hours and hours of intense agony to the mother and danger to the child? I prefer to perform the operation before the first stage of labor is completed. It can be done then very easily, and without inflicting much suffering upon the mother. It is seldom necessary to give chloroform, though there is no objection to it if desired. After the foot is brought down the dilatation of the os uteri is more readily completed, and the duration of the labor much shorter.

There are some points as to the manner of performing the operation I would like to mention. The feet and legs occupy two different positions in these cases. In one, and the most common by far, the legs are flexed upon the thighs, which brings the feet very near the os uteri. In the other, the legs are extended, carrying the feet near the fundus of the uterus, by the side of the head. Of course, these last are most difficult to manage, and rarely fail to give trouble if left to themselves. I have adopted the following rules: 1. In introducing the hand into the uterus use great gentleness with firmness, and always support the fundus with the unoccupied hand. 2. Introduce the hand, the palmar surface of which will pass readily along the posterior aspect of the thigh of fœtus. 3. Choose the foot most anterior. 4. Never bring down but one foot —reason obvious—it leaves protection for cord, and gives bulk for dilatation. 5. Do not hasten the passage of the hips through the pelvis; secure all dilatation possible. 6. Guide the rotation of the child in its descent, so that the abdomen is posterior in relation to the mother. I have said nothing in regard to the diagnosis in these cases, because the points of diagnosis are so well known, and so easily made out, that a mistake can only occur through great and inexcusable carelessness. —*Dr. J. E. Clark, Proceedings Medical Society, County of Kings, N. Y.*

NUCLEI IN THE RED-CORPUSCLES.—Boeltcher, in a paper which appeared in the *Journal of Microscopical Anatomy*, seems conclusively to have established the fact that the mammalian red blood corpuscle possesses a nucleus, together with a nucleolus. Defibrinated blood is poured into an alcoholic solution of mercuric chloride, by which the hæmatin is dissolved out, whilst the albuminous body combined with it remains undissolved. If these colourless corpuscles are now stained with carmine and examined microscopically they will be seen to consist of three parts :a bright homogenlous cortical layer, a granular protoplasm, and a clear nucleus with nucleolus. The protoplasm surrounding the nucleus is frequently found mulberry-shaped, and beset with small papillæ or drawn out into processes. If the blood corpuscles of a camel are examined in the same way the only difference will be found that the processes of the protoplasm are absent.—*London Hospital Gazette.*

ANURIA LASTING TWENTY-FIVE DAYS—RECOVERY.—The following extraordinary case, occurring as a sequela of scarlet fever, is reported by Dr. Wm. Whitelaw. The subject was a healthy boy of eight. December 3rd, his urine was observed to be scantier than usual, and the amount decreased rapidly until the 7th, when only one drachm was passed, and from this date up to the 21st, not a single drop, and yet with the exception of a slight headache his general health was excellent. During this time diuretics and diaphoretics were tried without effect; on the 19th a blister was applied over the kidneys, and in twenty hours two ounces of urine were passed, when complete suppression again occurred. The blister was reapplied on the 27th, but with no success. Diaphoretics and purgatives were now discontinued in the hope of forcing the kidneys to act, but no change became apparent in the condition of the patient, who still continued in excellent health. On December 31st very slight œdema of the feet and ankles appeared; and on the morning of January 2nd, one drachm of urine was passed daily, and on the 5th, a whole pint was voided in small quantities at eight different times. Since then the kidneys have acted well, and the boy has (January 12th) recovered.—*The Lancet*, Sept. 29th.—*Med. Record.*

THE UNIVERSITY OF PENNSYLVANIA.—We are glad to learn, from the *Philadelphia Medical Times*, that the success of the new plan of teaching in this school, to which we alluded in our last issue, is fully equal to the highest expectations, the general paying-class being quite as large as it was last year. One hundred and thirty first-course students have entered for the three-year term. There is said to be a marked improvement in the character of the new class.—*N. Y. Med. Jour.*

THE OBLIGATIONS OF THE RED CROSS SURGEONS.—Reports having reached this country of a serious breach of faith on the part of Mr. Douglas, one of the Red Cross surgeons, we referred to the subject in the following terms:—

"We trust there is some exaggeration about the statement that Mr. Douglas, immediately he fell into Russian hands, related stories prejudicial to the Turks. The fact has naturally caused a strong feeling at Constantinople against the Red Cross Society; and Mr. Kennett has issued a circular pointing out to the doctors that in the event of their being captured they ought on no account to give any information which could militarily or politically prejudice the army with which they have been serving."

From a letter just received from Mr. Douglas, we are glad to find that our doubts as to the correctness of these reports, were justified, and that he has completely exonerated himself from the as-

persions cast upon his conduct. We give his own explanations:—

"In justice to myself and my colleague, I beg to state that a Russian officer having made a report of the mutilation of the Russian wounded by the Turks after the battle of Teliche, we were asked if such things had come under our notice. We corroborated the statements of this officer by our evidence. *We strictly withheld every information, military or otherwise;* but I maintain that from my position as a member of a Red Cross Society, I was bound not to shield such a vile infringement of humanity and modern warfare. I may add that, having taken the opinion of English correspondents and others on the spot, they all agreed that we were perfectly justified in so doing. Nor have I met any Englishman since, either Russophile or Turcophile, who disapproved of the course we took."

Whilst upon this topic we may mention that, throughout this cruel war, British surgeons have greatly distinguished themselves by their attention to the wounded, under fire and after engagements. The latest telegram, referring to another member of the Red Cross Society, says:—"Surgeon Gill greatly distinguished himself, his horse was killed under him, and he was commended by Muchir Pacha for dressing the wounded under a heavy fire."—*Med. Press and Circular.*

RETROFLEXION WITH HYPERPLASIA OF THE UTERUS.—This patient, to whom we have but a few minutes left to devote, comes to us with a diagnosis. She was sent to me by a gynæcologist of considerable standing, who stated that she was suffering from anteflexion of the uterus and a small ovarian cyst. But even the best men are liable to mistakes, and if he had examined the case a second time no doubt he would have discovered that this diagnosis was incorrect. Of course, it makes a very great difference to the patient whether she has an ovarian cyst or some comparatively trifling affection, and we cannot be too careful in our diagnosis. On making an examination with the left forefinger in the vagina, and the fingers of the other hand pressed upon the abdomen, I failed to find anteflexion, but detected a body feeling somewhat like an orange behind and below the cervix uteri. Then placing the patient in Sim's position, and raising the side of the table on which the buttocks rest a few inches (as is now my invariable custom in making uterine examinations) so as to exaggerate the position and throw the viscera well forward, I passed the probe and found that it entered the cavity for three inches in a direction downward and backward. Then removing the probe I succeedeed in getting two fingers under the supposed ovarian cyst and without any difficulty pushed it up, when I reinserted the probe and found that it passed in the normal curve of the uterus. I now rocked the uterus gently backward and forward by means of the sound without occasioning the patient the slightest uneasiness, and thereby conclusively demonstrated the perfect mobility of the organ. The diagnosis, therefore, was retroflexion, with a hypertrophied and hyperplastic condition of the uterus.—Prof. Thomas, *Boston Med. Journal.*

TEARLESS MADNESS.—One of the most curious facts connected with madness is the utter absence of tears amidst the insane. Whatever the form of madness tears are conspicuous by their absence, as much in the depression of melancholia, or the excitement of mania, as in the utter apathy of dementia. If a patient in a lunatic asylum be discovered in tears, it will be found that it is either a patient commencing to recover, or an emotional outbreak in an epileptic who is scarcely truly insane; while actually insane patients appear to have lost the power of weeping—it is only returning reason which can once more unloose the fountains of their tears. Even when a lunatic is telling one in fervid language, how she has been deprived of her children, or the outrages that have been perpertrated on herself, her eye is never even moist. The ready gush of tears which accompanies the plaint of the sane woman contrasts with the dry-eyed appeal of the lunatic. It would, indeed, seem that tears give relief to feelings which when pent up lead to madness. It is one of the privileges of reason to be able to weep. Amidst all the misery of the insane they can find no relief in tears.—*British Med. Jour.—Med. News.*

RESIGNATION OF MR. SPENCER WELLS.—On the 12th December last, after performing ovariotomy for the the 404th time at the Samaritan Hospital, Mr. Spencer Wells said that he was now retiring from the active work of the hospital, having been elected consulting surgeon, and that he had now operated probably for the last time in the hospital. It is believed that Mr. Wells has operated in hospital and private practice more than 900 times; and in the 404 hospital cases the total number of deaths was 99, the percentage having gradually diminished from 33 to 10 per cent.—*Ibid.*

TRACHEOTOMY IN DIPHTHERIA.—Dr. A. M. Tupper, reports in the *Boston Medical and Surgical Journal*, a severe case of diphtheria, with invasion of the larynx, in a boy seven years old. Tracheotomy was performed on the eighth day, and the patient recovered. The tube was finally removed fourteen days after the operation.

LARGE STONE.—Prof. Gross, of Philadelphia, operated recently by the lateral method, removing from a boy, aged 12 years, a stone which weighed one ounce and five and three quarter drachms.

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science

Issued Promptly on the First of each Month.

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.*

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; J. M. BALDWIN, 805 Broadway, New York, and BAILLIERE, TINDALL & COX, 20 King William street, Strand, London, England.

TORONTO, FEB. 1, 1878.

DIPHTHERIA AND ITS TREATMENT.

Diphtheria is another instance of how the increase of knowledge robs a disease of half its terrors, and still indiscriminating minds attach great value to preconceived notions as to its contagiousness and the peculiar treatment that should be observed, notwithstanding that the treatment may have proven most unsatisfactory. A disputed point has lately arisen as to the contagiousness or non-contagiousness of diphtheria. Some assert that the original miasm giving rise to the first case in a family must be credited with being the point of origin of the others, as no time has been allowed for the stage of incubation, if we consider that several days of incubation are essential to its development.

Those theorists who hold that diphtheria is not directly contagious from patient to patient, grant on being pressed that the disease is infectious, and that coughing excretions into the mouth or face of an attendant, or by kissing or using the same spoon, through the saliva, the contamination may be introduced into the system of another, and thus the system become infected. Strictly speaking, there is no exhalation from a diphtheritic patient that, floating in the atmosphere, can be breathed so as to communicate the disease. Yet the germs of the vegetable organisms, arising as a miasm from accumulated filth deposits under peculiar circumstances—may be, and indeed are inhaled and by lodging upon the mucous membrane of the fauces and larynx sow the seeds of a very prolific harvest of young bacteria which exert a poisonous influence upon the fluids of the system. It is a disease which springs from the growth of a real fungus, plant or bacterium upon some of the mucous surfaces of the system, more generally of the throat. It may be spread by contact of the mucous surface of a diseased with those of a healthy person as in kissing, and in this limited degree epidemic. From the local parts affected it spreads to the whole body affecting the muscular and nervous systems, vitiating the lymph and nutrient fluids and inducing paralysis.

Diphtheria then must be looked upon as a disease of zymotic or miasmatic origin, becoming infectious by actual contact only, and not contagious by direct exhalations as in the case of typhoid fever, scarlet fever or cholera, and yet the manner in which it spreads often leads persons to assert its contagiousness as unquestionable. The writer in Ziemssen's Encyclopædia, page 584, asserts its contagiousness as follows:—"The fact of *contagiousness* is established, as well by actual cases which occur, as by experiment. Although it is generally admitted that when several members of a family or community are successively attacked, the disease may have developed as well through the influence of the prevailing miasm as by contact with objects infected with diphtheria, yet a series of observations have been made which shows that the disease evidently broke out, because the persons seized lived in the same house with the patients and came in direct contact with the diphtheritic matter." Diphtheria may be produced from the inhalation of its disease germ of miasmatic origin from an outside foci of disease-producing elements; but having been originated, there is no exhalation which inspired will give rise to the disease; it must be acquired by "actual contact, as in kissing, or by the patient coughing into the face of the attendant, a number of diseased germs in the shape of infected saliva or pieces of false membrane—hence it is truly a miasmatic-infectious disease, and not a miasmatic-contagious disease as it is called in Ziemssen page 582.

This however is splitting hairs and renders it none the less dangerous, or to be guarded against by isolation, for "direct contact" with the virus is very easily brought about in the same dwelling. Destruction of the original foci, with avoidance of direct contact or ingestion of the infected fluids of the patient is sufficient to avoid contracting the disease.

In regard to treatment it is now claimed by many, that this minute fungus-plant may be readily destroyed by many agents, in the incipient stage, and hence the disease may be readily con-

trolled and its fatility prevented by the use of such remedies as sulphur in the powder blown into the throat every half-hour, or by chlorine water, diluted with two to four times its bulk of water and used as a spray to the throat, or as a gargle. This fungus is of a contaminating nature and hence if allowed to develop will vitiate the secretions of the body, and if it does not accumulate in sufficient quantity to induce strangulation will prove fatal by its influence upon the nervous centres, producing paralysis.

Isolation is imperatively demanded to prevent the possibility of direct contact with the germs of the disease, cast about with the excretions, especially the saliva. So virulent is this, that a child picking up a canula which had been in another child's throat and putting it to its mouth, took the disease and died in a short time. Cases have also been known to occur from contact of the lips in kissing the corpse. In the early stages the sulphur or chlorine water is most effectual, but when the false membrane has already formed something more destructive is required, and a weak solution of carbolic or salicylic acid in glycerine is very effectual. Destructive agents in the early stages are very prejudicial to the success of the case. The chlorine water is *par excellence* the remedy for this affection in its early stages. We have not referred to the vexed question of contagion or infection to render precaution against its spread less incumbent, but to show that only by direct introduction of the *disease germs* into the system can it be spread from one to another, and this result can be prevented only by isolation.

An article on Diphtheria by Dr. Lewis Smith, of New York, will be found in this number, page 174, and is worthy of a careful perusal.

MEDICAL EDUCATION IN THE PROVINCE OF QUEBEC.

Since the inception of the present medical Bill of the Province of Quebec, matters have not been running in their usual smooth current, and at the present time—aside from the charges made against the late Registrar—there exists a bone of contention of serious import, as it affects alike all the teaching bodies in that Province unfavourably except one—that one being its promoter. A good deal of anxiety has been manifested by the medical faculties of McGill and Bishop's College Universities, with regard to a proposition of Laval to alter the duration of the course of medical lectures from six to nine months. The latter term is that of Laval at Quebec, while the six months' course is the one followed by the two English medical schools in Montreal, as well as by that of the French branch of Victoria University, and is also that established by the law of the Province. "It is also the term of the other medical faculties in the Dominion and in Great Britain, and its superiority over the nine months' course is thus generally acknowledged. The actual number of lectures given in each case is the same, only in the one they are spread over a longer period of time. Under the circumstances, it was necessary for Laval either to reduce the duration of her course to six months, or to secure a change in the law of the Province by which nine months should be made the legal term. The project to alter the law in the interests of Laval naturally meets with strong opposition on the part of the faculties of McGill and Bishop's Colleges, who claim that such a change would affect their medical schools disastrously. At present the great proportion of the students in both schools are from Ontario, the Maritime Provinces and the United States. A compulsory adoption of the nine months' course would drive all these students away to other schools where they could save three months time and attendant expenses, and would in fact completely destroy the influence of Montreal as a centre of medical education.

It was the intention of the promoters of the scheme to call a special meeting of the Provincial Medical Board in order to propose this change for adoption by the Legislature at its present session, but owing to the vigorous remonstrances of McGill and Bishop's Colleges, the matter is to be left over until the regular meeting of the Board in May next.

Some persons may be curious to know how this new movement of Laval is going to affect the French medical school affiliated to Victoria University. From all we can learn it is to be absorbed and swallowed up, although the victim has been undergoing a sort of lubricating process before it would go down. At first Laval was inclined to break bones, and only take two or three of the

professors of the French School into its Montreal *succursale*, taking it for granted that Victoria would, of course, consent to die without a murmur. But the remaining seven or eight members of the staff were not willing to be snuffed out so easily, and getting legal advice found they could retain their charter and thus continue to maintain their school in spite of Laval. Consequently, Laval had to consent to swallow the whole staff of Victoria.

It is just possible that the promoters of the scheme may get a Bill introduced during the present session of the Provincial Legislature, and after passing its second reading allow it to lie over. Should such a law be passed it would result simply in driving students away from such institutions as were compelled to adopt it, and therefore it would inevitably ruin the medical schools of McGill College and Lennoxville, as is its evident intention. It is to be hoped no such suicidal policy will prevail.

INEXPEDIENCY OF PHYSICIANS DISPENSING DRUGS.

The operation of the several pharmaceutical Acts passed by the Legislatures of Ontario and Quebec in recent years, in regard to curriculum of study and examination of druggists, has been all that could be desired. The examinations have been, year by year, made more comprehensive and searching, until they may now be considered as rapidly approaching to the high grade of the French pharmacien, and the yearly supply of passed candidates is fully equal to the requirements of the profession. With then, this advanced knowledge of pharmacy on the part of the druggists, the time has surely arrived for medical men in accessible reach of a druggist, to abandon the combination of profession and trade. This strange combination of physician and druggist in the same individual, is the principal cause of the anomalous state of the profession in Canada. Medicine is the only learned profession that has ever been associated with trade. The practitioner who dispenses medicines, has a great portion of his time occupied with matters entirely foreign to the science he professes, dissonant from the habitual tone of his mind, and hence to the last degree irksome and disgusting to him. Many a valuable hour that he would gladly devote to study, is wasted in making up medicine, not half of which will ever be swallowed, or bills, not half of which will ever be paid. He returns from visiting a difficult case,—What author does he take up to assist him in its consideration? No author, alas! but the time that he would gladly give is taken up with preparing medicines for patients he may find in his office. He returns from an interesting post-mortem, and would wish to consult Paget or Rokitansky; but, it wont do, Mrs. Gripes has just sent for a pill, and Mr. Grumble for a mixture. With such stuff as this, too much of the time is taken up, which ought to be devoted to science and letters. Is it to be wondered at that French and German physicians claim the ascendancy in scientific medicine?

In order also to raise the science of medicine to a higher level, a tariff of fees graduated according to the circumstances of patients, should be recognized by the courts. In this way the disgraceful contention for patients, by undercharging, would be in a measure diminished. The code of ethics adopted by the Canada Medical Association should also be recognized by every practitioner as his rule of professional life, and lastly the provision in the various Medical Acts for the due prosecution of quacks and impostors, in those Provinces in which the Acts are in force, should be made a fact, no longer as at present a fiction.

THE MONTREAL MEDICAL LICENSE CASE.

For some time past this *casus celebre* has been before the Courts in the City of Montreal. Dr. Gilbert, of Sherbrooke, Que., charged Drs. G. E. Fenwick, of Montreal, and E. D. Worthington, of Sherbrooke, the former the late Registrar, and the latter a Governor of the College of Physicians and Surgeons of Quebec, with "forgery" in issuing a certain license to Dr. Mines of Massawippi, Que., a graduate of McGill College, which had been antedated to 1875 instead of bearing the date of issue June 1877. Dr. Mines graduated in McGill College in 1874 and practised for some time in the Province of Ontario, but subsequently settled in Massawippi in August 1875. It appeared from the evidence that he never presented himself before

the College of Physicians and Surgeons of Quebec to obtain his license as was required by law—although he was entitled to it. The gravamen of the charge lay in the fact that Drs. Fenwick and Worthington issued a license to Dr. Mines, without his conforming to the letter of the law, in June last, which was purposely antedated to 1875, in order to secure his vote at the election of the Board of Governors.

From all that has been elicited in evidence there does not seem to have been anything more than a grave irregularity committed, and for which numerous precedents existed. The intent to commit fraud was not proven. A good deal of bitterness and ill feeling was also shown to have existed between Drs. Gilbert and Worthington for years past.

It is unfortunate that there should have been any irregularities in the conduct of the affairs of so important a body, but possibly the lesson may be salutary in its effects upon others holding offices of public trust. It often happens when men are allowed to have public affairs under their own control for too long a time, they begin to consider it their business to do as they please. This said, we trust, as no interest has seriously suffered and no harm been done to any one, that the magistrates deliberation may result, as has already been foreshadowed, in dropping the case altogether. It cannot be said however that Dr. Gilbert had no grounds for bringing the case into Court. We are glad however for the sake of the profession in Quebec, and also the medical men concerned that the case is about to be satisfactorily terminated.

ONTARIO MEDICAL BOARD.

At the last meeting of the Ontario Medical Council it was decided to hold the examinations in the latter part of the month of May—one month later than usual. It was alleged as a reason for this change that the medical students were in the habit of deserting the lecture room, (an allegation not very flattering to the lecturers) about the latter part of February, in order to cram for the examinations in April. This statement, whatever may have been the experience of those who gave utterance to it, is not generally true. Upon making careful enquiry, we find that the attendance upon lectures during the latter part of the session in the majority of the medical schools, is quite equal to that during the previous part of the session. Our object at the present is not, however, to discuss the question of attendance upon lectures, but to point out the disadvantages under which the students labor by reason of this change in the date of examination.

In the first place, the effect of the present arrangement is to prevent all students who may desire to do so, from attending any of the summer courses of lectures, either in Canada or the United States, until the sessions are far advanced. A summer course of lectures was delivered in McGill College last year, commencing on the 1st May, which was most successful in point of attendance and in the character of the instruction given. A summer course was also advertized in one of the medical schools in Toronto, but with what measure of success we are unable to state. It would almost seem, (of course we do not wish to impute motives,) as if those who secured the passage of the regulation, did not desire that the students should have an opportunity of availing themselves of any other course of instruction, except the lectures delivered during the winter session. The students are also put to greatly increased outlay for board and travelling expenses, which many of the most deserving can ill afford. The period which they should spend in the office of a medical man is also very much curtailed, and those who desire to go to Europe to complete their course of studies are detained until late in the season. We understand that the students of the different schools have sent up petitions to the executive committee, setting forth the disabilities under which they are placed, and asking to have the time of the examination changed to the month of April as heretofore.

THE GREAT WESTERN RAILWAY MEDICAL TARIFF.

[The following letter was received too late for insertion under the head of correspondence.]—Ed.

To the Editor of the CANADA LANCET.

SIR,—In your last issue, I observe a letter from Brantford signed D. L. P., in which great fault is found with the Great Western Railway Co., for the "insult offered the profession," through the arrange-

ments made for providing "medical and surgical aid" for their employees at the rate of one dollar per annum, for each employee.

Now, I fail to see the difference, between accepting the appointment from the company upon the terms offered, and accepting an appointment from a lodge of Free Masons, Foresters or Odd Fellows, upon the same terms, as I am informed is done by some members of the Brant County Medical Association—one, I regret to say, a former President of that Association.

Yours truly,
ONE WHO ACCEPTED THE APPOINTMENT.

VICTORIA COLLEGE MEDICAL DEPARTMENT.—The Montreal branch of the Medical Department of this University has lately become amalgamated with Laval University, Quebec. This robs Victoria University of half her glory, so far as the medical department is concerned. The other *half* still exists in Ontario, viz., the Toronto School of Medicine. This school is now, and has been for the past three years, advertized in the Victoria College calendar as the Medical Department of Victoria University, and intending graduates are referred for additional information to Dr. Aikins. This position is rather anomalous when it is remembered that the Faculty of this school is at particular pains to parade itself, among a certain class, as having specially close relations with the Toronto University *only*.

REPRESENTATION IN THE ONTARIO MEDICAL COUNCIL.—In reference to our remarks in the last issue regarding increased representation for the territorial divisions in the Ontario Medical Council, we might add that the Board of Governors of the College of Physicians and Surgeons of the Province of Quebec consists of *forty* members. The Ontario Medical Council at present consists of thirty members, five of whom (Eclectics) cease in 1879—so that the addition of twelve territorial representatives as proposed, would bring the total up to *thirty-seven only*. This representation for the Province of Ontario, with its much larger medical population, cannot be considered unduly large when contrasted with Quebec.

MINERAL SPRINGS OF ST. CUTHBERT, QUE.—This mineral spring has been long known to the inhabitants of St. Cuthbert, but only lately has attracted attention by the determination of the proprietor, M. Fauteaux, to bring it under the notice of the public and the profession. For this purpose he has submitted the water for analysis to Dr. Baker Edwards, who states that it contains in considerable quantities chloride of sodium and potassium; iodide of sodium and potassium; chloride of strontium and barium; calcium and magnesium; together with silica and alumina, and some carburetted hydrogen gas. It therefore appears to be a powerful saline spring, and is valuable for its iodides as well as its strontium salts. The waters are purgative, alterative and antacid. It is the intention of the proprietor to erect a commodious hotel on the property.

SUSPENSION OF THE BRITISH AND FOREIGN MEDICO-CHIRURGICAL REVIEW.—The suspension of the *British and Foreign Medico-chirurgical Review and Quarterly Journal* is announced in the October number. The reason given for its discontinuance is, "that the same impatient spirit which looks for rapidly recurring issues from the secular press has spread itself among medical readers, and the acknowledgment is sadly made, that the thoughtful old quarterlies must yield to the more spirited monthlies and weeklies." It dies gracefully, after an honorable existence of thirty-eight years, during which time it has maintained a leading position in directing medical opinion and progress.

ROSIN WEED.—This is the Silphium Gummiferum which grows in the western prairies, and is the same drug that is used so largely for curing heaves in horses. It is very extensively used in medicine by some physicians as an expectorant, and is claimed to have a special action upon the liver. It is tonic, diuretic and alterative, and is largely used for intermittent and remittent fevers. We have not had sufficient experience with it to express an opinion as to its merits, but there is no question as to its diuretic properties. It has been suggested as an appropriate and valuable remedy in chronic bronchitis and asthma. The fluid extract is the form of preparation used.

POISONOUS HONEY.—It is a fact long known, but generally forgotten, that honey sometimes possesses violent poisonous properties. The war cor-

respondent of the London *News* was nearly poisoned a short time ago, by eating honey obtained from the Batoum valley where hemlock and henbane grow abundantly. After partaking of it he was seized with headache, vomiting, coldness of the extremities, and temporary blindness. The honey derived from the Azalea Pontica, an eastern plant, is said to be very poisonous.

ELECTION TO THE MEDICAL COUNCIL.—Dr. W. L. Herriman of Port Hope has been elected to represent King's and Queen's Territorial Division in the Medical Council of Ontario, *vice* Dr. Dewar deceased. Dr. Herriman will make an excellent representative and a worthy successor of the late Dr. Dewar.

GROWTH IN THE HUMAN FAMILY.—The rate of growth of the human family is curious. The most rapid increase takes place immediately after birth, the growth of an infant during the first year being about eight inches, the ratio of increase gradually decreasing until the age of three years, at which time the size attained is half that which will be reached when full grown.

CHEMISTRY OF COMMON LIFE.—*Punch*, says a distinguished Professor of Chemistry, suggests that the nomenclature of that science might be drawn upon for a variety of pretty additions to female names. Having himself a family of five girls, he has named them respectively, *Glycerine*, *Pepsine*, *Ethyl*, *Methyl* and *Morphia*.

POISONOUS EFFECT OF EMERALD GREEN.—An English medical practitioner calls attention to the injurious effect arising from the use of colored wool—more especially that shade of color so frequently selected, and known as emerald green. He says he has lately witnessed an instance of arsenical poisoning arising from its use, and on testing a portion of the wool the lady had been using found it largely charged with arsenic.

INGLUVIN.—In our last issue we mentioned among the important new remedies, "digestin." This should have been written Ingluvin. This substance was originally called digestin, but as there was a patent medicine on the market of that name, it was changed to Ingluvin. It is much superior to the ordinary pepsin preparations.

A FORTUNATE MEDICO.—Dr. James R. Woodgate, of Granton, Ont., has lately fallen heir to a fortune of $30,000 by the death of a relative in England. He leaves shortly to claim it, and is at present receiving the congratulations of his friends.

FOUR JOURNALS FOR $8.—The following journals will be sent to any address for one year at the rates quoted, *cash in advance*:—CANADA LANCET, and *Braithwaite's Retrospect*, $5; CANADA LANCET and *Scribner's Monthly*, $5; CANADA LANCET and *New Dominion Monthly*, $4; or *all four for $8*. (See commutation rates.)

Reports of Societies.

HURON MEDICAL ASSOCIATION.

At a meeting of the above Society, held in Clinton, on the 17th of Oct., the following were appointed officers for the ensuing year:—

President—Dr. Worthington, of Clinton; Vice-President—Dr. McLean of Goderich; Secretary-Treasurer—Dr. Stewart, of Brucefield.

Dr. Sloan, of Blyth, exhibited a patient affected with exophthalmic goitre. The palpitation, thyroid enlargement, and exophthalmos were all well marked, especially the latter. The skin in this case was very dry. Urine copious, very pale, and of low specific gravity, but free from both sugar and albumen. Urine has been examined both during fasting and after a good meal. It is free from casts, but contains a large quantity of minute oxalate of lime octahedra. This patient has improved under digitalis and ergot. It is a well known fact that there is an intimate connection between Graves' disease and temporary albuminuria, and also diabetes mellitus, but we are not aware of having read of a connection between Graves' disease and diabetes insipidus.

The last meeting of this Association was held in Wingham on January 15th. The following members were present—Drs. Worthington, Bethune, Sloan, Tamblyn, Towler, McDonald, Graham, Gordon, Young, Hurlburt and Stewart. Dr. Worthington occupied the chair. Dr. Sloan showed a woman, aged 35, who has a pulsating tumor situated over the lower and anterior surface of the right femur. A soft and blowing bruit is heard over it. Pressure on the femoral immediately

below Pouparts ligament, causes the pulsation and bruit to cease. It is not distinctly limited or circumscribed. Its long diameter, which corresponds to the axis of the limb, is 4½ to 5 inches. Its transverse diameter is from 2½ to 3 inches. Its direct anatomical supply cannot be made out. It is freely movable over the bone, and has no attachment to the skin. It has no bony envelope. It is of 11 years standing, and the patient says it was caused by an injury.

Drs. Stewart and Hurlburt showed a fair haired, delicate boy, aged 6 years, who is wearing Sayre's "plaster jacket" for lateral curvature of the spine. Previous to the application of the jacket he was disinclined to move about, but since it was put on he runs about freely, and his general health is improving rapidly. He says that he is free from pain and annoyance.

Dr. Bethune read a very instructive paper on typhoid fever. He gave the details of 3 cases of this disease, which he considered occupied the borderland between well marked typhoid and the so-called simple continued fever. In two of the reported cases there seemed to be but little doubt but that the fever arose spontaneously.

Dr. Towler reported an unique case which came under his observation in obstetrics lately. As a full report of this case will shortly appear in the LANCET, it will be unnecessary to give an abstract of it here.

Drs. McDonald and Graham were appointed to read papers at the next meeting of the Association, which will be held in Clinton, on the 16th April, 1878.

TARIFF OF FEES.—The following is the tariff of fees adopted by the Huron Medical Association:

Office Consultation	$1 00 to $2 00
Ordinary Consultation with another Physician	2 00 to 4 00
Ordinary Visits during the day	1 00 to 1 50
Ordinary Visits during the Night	1 50 to 2 00
Mileage—Any distance up to two miles	2 00
Mileage—beyond two miles	50 per mile.
For Night Visits—25 to 50 per cent additional.	
Written Opinion	2 00
Passing Catheter	2 00
Extracting Teeth	50
Setting Fractures and Reducing Minor Dislocations	5 00 to 10 00
Setting Fractures and Reducing Major Dislocations	10 00 to 50 00
Administration of Chloroform, &c.	2 00 to 5 00
Natural Labor	5 00 to 10 00
Mileage over two miles	extra.
Difficult, Complicated or Instrumental Labors	10 00 to 20 00
Removal of Retained Placenta	5 00
Speculum Examination	1 00 to 2 00

Toronto Hospital Reports.

(Reported by Wm. McKay, Trinity Medical School.)

PERFORATION OF THE STOMACH.

Jane McN——, aged 22, a native of Canada. Admitted into the Hospital on the 13th of Decemuer, 1877, complaining of pain in the stomach, also in the back of the chest and shoulders. She first noticed it one night in August last when she was running for a medical man, and attributed it at the time to the exertion. The pain extended to the limbs, and has been more or less severe. For the past two weeks she has not had much appetite and has been vomiting a great deal; was able to work until four days ago; since then she has been feeling generally worse and now feels almost unable to move. Has been perspiring freely for some days past but not previously. Has been somewhat constipated habitually, and especially so within the past five days. Has had several enemata but without effect. Tongue coated brown and mouth has been thickly coated for three or four days. Pulse is wiry and quick 152; respiration is somewhat laboured and causes pain in the posterior part of the chest. "Changes" have been scanty but quite regular every three weeks for some time past. For the past few days micturition has been painful and scalding, and urine is scanty, with a dark sediment. Has had no sleep for two nights past on account of pain. For two weeks past has felt a hardness over the stomach, and the entire abdomen is now tender, causing pain on slight pressure. Was ordered repeated turpentine enemata which relieved the lower bowel. Also stimulants to support the strength, and morphia to allay pain.

Dec. 14th.—Died at one o'clock p. m.

Dec. 15th.—Post-mortem examination shows the pericardium inflamed on the outer and left surface, and containing rather more fluid than normal. Internally it is inflamed at the base. The heart weighs 10½ ounces. The right ventricle contained a small quantity of fluid blood, and a large well organized clot. The left ventricle is empty; the valves are normal. The auricles each contain a large firm clot extending to the ventricles. The lungs are emphysematous on the surface and espe-

cially on the left side. The abdomen is filled with muco-purulent fluid containing shreds of false membrane. Peritonitis is general, extending over the liver and under surface of the diaphragm, etc., and false membrane can be dissected off.

The transverse colon turns downwards and then upwards to the left hypochondriac region.

The stomach shows on its upper and posterior part, just beneath the centre of the left lobe of the liver, a small irregular perforation, also distinct marks of previous ulceration. The glands around the pylorus much enlarged, and the rugœ well marked and inflamed in patches. The intestines show true inflammation but not enough to cause obstruction. The ilium is inflamed in patches. The ileo-cæcal valve healthy. The spleen is normal. The liver weighs 3 lbs, is healthy in appearance. Ductus com. choled. is obstructed. Kidneys slightly inflamed on the surface, but otherwise normal. Uterus virgin, and normal. Cystic disease in both ovaries.

Books and Pamphlets.

THE FUNCTIONS OF THE BRAIN, by David Ferrier, M.D., F.R.S., King's College, London. Illustrated. New York: G. P. Putnam's Sons. Toronto: Willing & Williamson.

The author presents to the professional reader in this work, a systematic exposition of the bearing of his experiments on the functions of the brain and spinal cord, or the cerebro-spinal system in general. It is a work of about 300 pages octavo, and is a highly interesting resum of the knowledge so far acquired regarding this intricate subject—the function of the brain. The discovery of the electric excitability of the brain by Fritsch and Hitzig, has given a fresh impetus to researches on the function of the brain, and thrown new light on many hitherto obscure points in cerebral physiology and pathology. Much still remains to be done, and it is useful to review the knowledge so far acquired, in order to show how much yet remains to be done.

A TREATISE ON GONORRHŒA AND SYPHILIS, by Silas Durkee, M.D., Boston. Sixth edition, with eight colored illustrations. Philadelphia: Lindsay & Blakiston. Toronto: Hart & Rawlinson.

Dr. Durkee's work was first published as an essay on the "Constitutional treatment of Syphilis," and as such secured the Boylston Prize. This essay constitutes a large portion of the present volume. The author has had large experience, excluding over thirty years in the treatment of venereal disease in connection with the Boston City Hospital, and he has given the profession the benefit of his ripe experience in the work before us. The design of the author was, as he says, "to furnish a book that should be practically useful," and in this he has succeeded beyond a doubt. The work will be found to be a most valuable addition to the library on venereal diseases.

THE ACTION OF MEDICINES, by Isaac Ott, A.M., M.D., formerly demonstrator of experimental physiology, University of Pennsylvania. Philadelphia: Lindsay & Blakiston. Toronto: Hart & Rawlinson.

This is a small octavo containing about 160 pages, and it is devoted to a consideration of the physiological action of medicine upon the lower animals and man. The details of the method of experimenting upon animals are given briefly; also the results of the different experiments and the deductions to be drawn from them. The work will be chiefly serviceable to those who are engaged in experimenting. The author also mentions at the close of the work, the manufacturers from whom the instruments used in these experiments may be procured.

HOW TO USE THE OPHTHALMOSCOPE, for the use of students, by E. A. Browne, Liverpool Eye and Ear Infirmary, pp. 120. Philadelphia: H. C. Lea. Toronto: Willing & Williamson.

Birth, Marriages, Deaths.

On the 11th ult., the wife of Dr. A. H. Wright, Toronto, of a daughter.

On the 1st ult., Alexander Kennedy, M.D., M. C. P. S., of Port Perry, to Ida, only daughter of Edward Howard, Esq., of Bath.

On the 14th ult., A. J. Masecar, M. D., of Tilsonburgh, to Miss Van Patter, youngest daughter of the late A. Van Patter, Esq., Aylmer, Ont.

On the 22nd ult., at the residence of the bride's father, by the Rev. E. Hooper, assisted by the Rev. John Gilchrist, of St. George, James Sinclair, M. B., of Hastings, to Emma, youngest daughter of Cyrus Kilborne, Esq., of Beamsville.

In Dec., 1877, Frank Lawson, M. D., of Bedeque, P. E. I.

In Montreal, on the 24th ult., Hector Peltier, M.D., Prof. of Institutes of Medicine, in the Victoria Medical School.

THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

VOL. X. TORONTO, MAR. 1ST, 1878. No. 7

Original Communications.

ON THE CAUSES AND TREATMENT OF DELAYED UNION IN FRACTURES.

BY JAS. CATTERMOLE, M.D., L.S.A., LONDON, ONT.

During a railway accident on the 3rd of February, several years ago, Mr. C., aged thirty-two, sustained fracture of the humerus in its upper and lower third. The patient was promptly attended to by two surgeons of acknowledged ability, who, after a brief period, duly put the limb up in splints. At the end of eight weeks a fair amount of union had taken place in the fracture near the elbow, but none whatever in that of the superior third of the bone. A starch bandage was now applied for some weeks, but without benefit. The surgeons now deemed it necessary to scrape and puncture, subcutaneously, the ends of the bone with a tenotomy knife. This not answering expectations, a seton was passed between the ends of the bone. About five months after the accident Mr. C. came under my care, wearing the seton, which I allowed to remain for a time, trusting it would finally produce sufficient local action. In this, however, I was disappointed, and at length determined to try the time-honoured plan of friction. To accomplish this, a weight of sixteen pounds was attached to the hand and wrist of the lame arm, which had the effect of bringing down the lower fragment into apposition with the lower end of the superior. On every second or third day for a fortnight, gentle swinging of the weight was used each time for about fifteen minutes, or until some uneasiness was produced. This mode of treatment was continued, gradually increasing the force of the friction, for four or five weeks longer. For the last three weeks an operation every fourth or fifth day was deemed sufficient. The arm had now become somewhat swollen and painful, with just sufficient increased vascular action to hold out more promising results. A long, heavy, hollow, box splint, fitting the back and sides of the limb, was now applied, extending from the shoulder to the hand, the whole allowed to hang unsupported, so that the weight of apparatus, fore-arm and hand might keep up sufficient extension for the adjustment of the upper and lower fragments. The arm was left undisturbed in this splint for six weeks. On removing it, we were gratified to find the stubborn fracture had firmly united, and the patient shortly afterwards returned to active employment on the railroad, where he worked steadily for just thirty days, when he was again overtaken by misfortune. On going home from his work in the darkness of the evening, he unluckily fell into a cow-catcher and broke the middle third of the same unfortunate bone, nearly three inches below the old fracture of the upper third. But little trouble was experienced by this last affair, as, under the ordinary treatment, firm union took place in forty-five days, and again the patient resumed his duties on the road, and still remains there, a much esteemed employee of the same company.

Notwithstanding the amount of satisfaction experienced on the termination of cases similar to the above, yet nothing can be more vexatious to the surgeon than the occurrence of delayed union, in any case of fracture entrusted to his care. The limb may have been quite properly put up, and from time to time sufficiently examined without unnecessary disturbance; in every way treated secundem artem; the patient in apparent good health; the case, in fact, promising recovery in the usual period allotted for cure. The dressings are removed: the parts present a fair appearance as to position; ends of fragments apparently in apposition; the contour of the limb symmetrical; but, on handling it motion is discovered, and, to the dismay of the surgeon, he finds that he has an ununited fracture, and that to deal with. Such an unlooked for result may occur to the most skillful practitioner, and that indeed without any obvious pre-existing condition to render him apprehensive of non-union. In most systems of surgery, many, possibly too many, causes are assigned for the failure of ossific deposit, and the long list of causes is followed by one still longer of remedies, or plans of treatment. Considerable experience has led me to believe that the causes of deficient deposit are

far more limited than surgical writers are in the habit of enumerating. Of these conditions, constitutional and local are the principal. From the first we may have general physical debility and consequent atony of the injured parts; a lack of vascular action and supply, not only in the broken bone, but also in other parts of almost paramount importance, namely; the structures and soft tissues immediately surrounding the broken fragments. As to the local causes; occasionally it may be somewhat difficult to arrive at their precise nature, but, as Gross observes, it is not improbable that their influence has been greatly exaggerated.

Some writers would fain persuade us to believe that the absence of reparation in these cases altogether depends on the relative situation of the fracture and nutrient vessels of the bone, as for instance, that fractures in the upper part of the shaft of the humerus fail to receive sufficient nourishment in consequence of the downward course of the nutrient arteries, and in like manner we are given to understand that when the lower ends of the bones of the fore-arm, or femur, are broken, that we must expect union to be more or less delayed, because the arteries of the bone take their course upwards, and thus forsake the damaged parts. But it is certainly fortunate as well as true that in spite of the opposite course of these nutrient vessels, union is generally obtained in very good time. The soundness of such a theory is very questionable, for many of the best practical surgeons tell us that they have met with cases of delayed union where the fractures have occurred in those parts of the bone usually traversed by the nutrient arteries, about as often as in parts which are said to labour under the disadvantages of deficient supply, and that, in either situation, the length of time required for final and complete consolidation has been about the same. With this statement I fully concur, after experience in and observation of these matters for the last forty years. Norris, in his analysis of forty-one cases, found that twenty-seven were in the direction of the nutritious arteries, and only fourteen in the parts *supposed* to be less nourished.

In these unpromising cases, it is always expedient to obtain consolidation by the safest and most simple method, studiously avoiding all extreme measures, for the mere irritation produced by a seton will occasionally lead on to diffuse inflammation, suppuration and very disastrous results. Excision is still more hazardous, for, although the operation has been successful in some cases, in others it has proved fatal to the patient; moreover, instances are recorded in which these operations have been well borne, but yet entirely failed to cure the fracture. A very interesting case of the sort is detailed in part forty-seven of Braithwaite's Retrospect.

Celsus, in his eighth book, says:—"If the fracture is of long standing, the limb must be extended to create a fresh injury, the bones must be separated by the hand, and the surfaces may be roughened by rubbing against each other, and if there be any fatty substance it may be abraded, and the whole may become as it were recent."

This plan of the old Roman doctor has been much too sparingly employed, even down to the present time. Some surgeons of the present day know its value, and generally adopt it in the treatment of their cases; but the majority incline more to the high pressure system, and regard the good old plan as too slow and tedious, and though it may appear so to them, it is certainly, on the whole, by far more reliable than any other method, when patiently and properly carried out, having in very many instances succeeded after all other means had utterly failed.

STRANGULATED FEMORAL HERNIA.—SUCCESSFUL OPERATION AFTER TEN DAYS' STANDING.

BY WELLINGTON N. CAMPBELL, M.D., NEW YORK.

Late House Physician and Surgeon to the 99th street Hospital; late Ambulance Surgeon to Bellevue Hospital; late Assistant Sanitary Inspector to the board of Health; Attending Physician to the New York and Northern Dispensaries.

On the morning of the 22nd of December, 1877, I was called to see W. W. Bingham, aged 53 years, painter, and found him suffering from a tumor in his left groin, which, on examination, proved to be a strangulated femoral hernia. The patient states that the rupture first appeared about eighteen months ago, after lifting some heavy merchandise upon a truck; but he had always been able to reduce it, by lying in a prone position and performing taxis, up to the 12th of December, 1877, when, painting at a height that required some effort to

reach, he found that it had suddenly enlarged, and from which he experienced special pain for the first time. Upon going home he performed taxis as usual, while in the prone position, but was unable to return it. He vomited from this date (12th) to the 17th, when he took two cathartic pills to move his bowels, and applied a mustard plaster over the tumor; but, finding no relief, he applied to a physician in Jersey City (18th) at which time he had stercoraceous vomiting, and he advised him to go to the hospital. He came to New York on the 19th, and I saw him on the 22nd. I found him prostrated from protracted efforts to vomit, and deemed it inadvisable to use prolonged taxis in attempts to reduce it, on account of its having been strangulated for so long a period. Having called to my assistance Drs. Dennis, Williams, Crawford, Schapps and Bargar, of this city, we immediately proceeded to etherize the patient, and when under its influence performed gentle taxis, but being unable to reduce it, proceeded to the operation without delay. Upon cutting down to the sac, we found it deeply congested, being of a reddish-purple color, and the fact of strangulation having existed for so long a time, we thought it safer to enter it, when we found, as we had previously diagnosed, an entero-epiplocele; a coil of the sigmoid flexure of the colon, was enveloped by a segment of the omentum, and was of a purplish colour; but no signs of decomposition had taken place, and there was scarcely any serum in the sac. The protruding mass was tightly grasped by Gimbernat's ligament. The stricture was divided by cutting upwards and inwards, and the contents of the sac returned with but little difficulty. Having cleansed the wound thoroughly, three interrupted carbolized silk sutures were applied, leaving the most pendant portion open for drainage; then applied a compress dipped in tepid water, enveloped by a spica bandage. One grain of opium was administered every two hours during the night and every four hours during the day, as occasion required, until the 25th. On the day following the operation (23rd), pulse 72, tem. 99¼; 24th, pulse 70, tem. not taken; 26th, bowels not having moved was given an enema of oat-meal gruel and castor oil, which produced a movement that evening. Patient was kept on a fluid nutritive diet, consisting of corn-starch and arrowroot, farina, barley-water and ice for a day or two, then allowed beef-tea cold. The sutures were removed on the fourth day, and a poultice of linseed meal applied daily, for three days, to aid the suppurative process; then renewed the warm-water dressing with spica bandage, the limb being flexed and retained in that position to relieve all tension. There were no signs of peritonitis, except slight tympanitis, which, I presume, was due to the opium administered, and which readily yielded to the application of turpentine stupes applied over the abdomen. January 13th, 1878,—Wound has healed, and the patient is walking about, feeling perfectly comfortable. The peculiarities of this case, as you will perceive, are as follows:—

1st. The fact of its being a femoral hernia in the male.

2nd. There being no gangrenous condition of the intestine, even after ten days strangulation.

DOUBLE OVARIOTOMY.

BY A. GROVES, M.D., FERGUS, ONT.

In October, 1876, Mrs. M., aged 35 and mother of seven children, consulted me with reference to an enlargement of the abdomen, which she had first perceived several months before. She had no pain, but noticed that the enlargement was steadily increasing. On examination, I found a tumor of the left ovary, about six inches in diameter. As the tumor gave very little trouble, I advised that nothing be done except general tonic treatment. In September last, seeing that the tumor had increased until she was stouter than she had ever been before her confinements, and that her health was giving way, I advised immediate operative procedure, to which she consented. On drawing out a little of the fluid, it gave more than two-thirds of its bulk of albumen. The operation was arranged for the 18th of September, and for a considerable time previous to that, she took iron in moderate doses. This seems to me to be a means of great importance for the prevention of erysipelatous forms of inflammation, and it certainly invigorates the system and increases the reparative power of the blood. On the day appointed, being the tenth after the cessation of the menstrual flow, I proceeded to operate in presence of Drs. Henderson and Carter, of Arthur; Thom and Tamblyn, of Douglas, and Orton, Griffith and Johnson, of Fergus.

Chloroform was carefully administered by Dr. Thom. An incision about six inches in length was made between the umbilicus and pubes, and on opening into the peritoneum the tumor at once bulged forward. It was now found that there were no adhesions, except to the mesentery, and that these were easily detached. Having tapped the tumor with a large trocar and canula, sixteen pints of dark fluid were withdrawn. The sac now easily slipped out of the abdomen. A great number of small cysts existed in the wall of the parent cyst, but none of them required puncturing. The pedicle, which was long and moderately slender, was tied in two parts with a strong hempen ligature, and divided with the ecraseur. The ends of the ligatures were drawn out of the lower angle of the wound, and the pedicle dropped back into the abdomen. On examining the right ovary, a cyst was found in it about the size of a marble, and consequently it was also removed, the pedicle being treated in a similar manner to that on the left side. After carefully sponging out the abdominal cavity and inserting a rubber drainage tube, the abdominal wound was brought together by six silver plated needles, passed so as to include the peritoneum, and wound round with thread in the ordinary figure of 8 form. A large compress of batting and a bandage completed the dressing. The patient was now put to bed, in one hour from the time she began taking chloroform, and a hypodermic injection of morphia given. Six hours afterward, great pain and soreness complained of, which was considerably allayed by half a grain of morphia. Patient slept part of the night, and said she felt well. On the third day persistent vomiting came on, which continued until the following morning; blood also came from the vagina, and did not cease for two days. The case after this progressed most favourably. Three of the needles were taken out on the seventh, and the rest on the eighth day. On the fourteenth day patient sat up. On the 24th of October one of the ligatures came away, and between this time and November 18th the remaining three came away. Since that time she has remained in the best possible health and spirits.

Dr. Bigelow reports in *The Practitioner* a case of tetanus caused by a rusty nail in the foot, which was relieved in less than thirty minutes by introducing a drachm of chloral hydrate into the wound after it had been enlarged by incision.

A CASE OF ARSENICAL POISONING TREATED BY DIALYSED IRON.

BY JAMES HAYES, M.D., C.M., SIMCOE, ONT.

The notes of this case I had prepared some time ago for publication, but laid them aside, and had almost forgotten them until I read the report of a similar case in the January number of the Lancet.

About six o'clock, on the evening of November 14th, last, I was summoned by Mrs. B., to see her char-woman, who, it was stated, had accidentally taken arsenic. Placing a bottle of (Wyeth's) Dialysed Iron in my pocket, I proceeded at once to the house and immediately administered a powerful emetic to the patient, and while this was producing a free evacuation of the contents of the stomach, I learned the following particulars:—

Mrs. B. had purchased a package of arsenious acid, for the purpose of destroying mice, and, this morning, had spread at least half a teaspoonful of the poison upon a slice of bread and butter, and placed it on a shelf in the pantry. During her absence from home for a short time, late in the afternoon, the woman went into the pantry and, seeing the bread and butter and not being aware that there was any poison upon it, ate the whole. She afterwards stated she thought it was rather gritty. On Mrs. B.'s return a few minutes after, the woman complained of being sick, with cramps in her stomach, and wished some ginger tea to relieve them. Mrs. B. then went to the pantry for the ginger, when she found the poisoned bread gone. On asking the woman, Mrs. B. was horrified to learn that she had eaten it. These were the particulars I learned after my arrival.

As before stated, I administered the emetic and promoted vomiting by large draughts of warm water. After the stomach had been thoroughly emptied, I gave a tablespoonful of dialysed iron, diluted with water, which was rejected in a few minutes. I then repeated it in thirty drop doses every twenty minutes for two hours, and afterwards at longer intervals. About two hours after my arrival, alarming symptoms of collapse showed themselves; the pulse became extinct at the wrist; the skin cold and clammy, etc.: but by giving brandy freely, with the application of hot bottles and friction, she began to revive, and went on gradually improving until, in about ten days, she appeared to be restored to her accustomed good

health. The only unpleasant symptoms she complained of during her convalescence were weakness, thirst, and a burning sensation in the stomach.

I attribute this woman's recovery entirely to the Dialysed Iron. It appears almost incredible that recovery should have taken place, considering the amount of arsenious acid swallowed. There must have been fully half a teaspoonful of the acid, which was lying in the stomach from half an hour to one hour before I saw her.

I have used this preparation (Dialysed Iron,) in very many cases, as a tonic, where other preparations of iron could not be tolerated, and always with satisfaction to myself and patients. I consider it a valuable addition to our materia medica, and trust that many of our nauseous drugs may be put into as palatable a form as this preparation of iron.

Correspondence.

To the Editor of the CANADA LANCET.

SIR :—My attention having been called to a letin the Canada Lancet for January, headed "G. W. R. Medical Tariff," and signed "D. D. P.," I wish to make a few comments thereupon.

In the first place, it is not accurate to state that "The G, W. R. Co. has adopted and officially promulgated a singular tariff of medical fees," etc., etc. What has been done is as follows :—It has been my earnest wish ever since I came to Canada, frequently expressed and still more frequently thought over, to establish a Provident Society for the men employed by the company, both for their own physical benefit and for the indirect advantage of inculcating habits of thrift. Obstacles, however, of various sorts prevented the idea from taking a practical shape until last autumn, when, after a great deal of consultation amongst those most interested in the matter, and with the promise of very material aid from the company, the "G. W. R. Provident Society was finally established. The expenses of management have, on my recommendation, been assumed by the company; but the Constitution and Rules have been drawn up and a tariff of fees adopted by the managing committee, composed chiefly of delegates from the different departments, and ratified by the members of the society, and for them the company, as such, is not responsible.

That the fees are small according to the present scale, must be admitted as well as regretted. A young institution of this character is naturally not in a position to offer, at first, very high remuneration for any services; but as it may be expected that the experience of a year's working will show the advisability of making alterations in some details, so it may reasonably be expected, in view of the fact that 2,300 men have already joined the society and that the number is steadily increasing, that the committee will also be able at that time to revise the scale of fees.

Your correspondent affirms that the small fee offered by the society is supplemented only "by a free ride over the line to and from their patient." Let me say that the medical officers who so kindly responded to the application made by them by promptly accepting the office offered to them, have a free pass extending for a considerable distance beyond the limits of their professional district; and they also know that a trip pass to any point on the line is at their service whenever they choose to make application for it—advantages which, I am sure, are very considerable, and are appreciated by the profession. In addition, these gentlemen who act for the Provident society are also recognized as medical officers of the company in the same district, and will be entitled to ordinary medical or surgical fees when their services are required.

Another correspondent, in your issue for February, states very candidly that he cannot see the difference between accepting an appointment from a railway company and from a lodge or an order on the same low terms, and I am encouraged to think that the majority of medical men take the same view, and are not inclined to agree with D. L. P., as considering the fees offered by the G. W. R. Provident Society as "an insult to the profession." At least, whether the result be due to an appreciation of the other advantages accruing to them, or from expectation that the fees may be increased, or from an honest desire to assist in carrying out a good work, I am happy to state that, out of twenty-eight gentlemen to whom I, on behalf of the company, offered the appointment of District Medical Officer, two only have declined to accept it.

Yours faithfully,

F. BROUGHTON.

HAMILTON, Feb. 6th, 1878.

ABSENCE OF ANUS AND PERINEUM.

To the Editor of the CANADA LANCET.

SIR;—I send you a report of the following case which is interesting chiefly on account of its anomalousness, and the adaptability of nature to preternatural anatomical conditions.

On December 30, 1876, I was called to an obstetrical case a few miles away. My patient, Mrs. C——, was rather less than medium-sized; weight about 100 lbs., aged probably 22 years, and had been married two years. Digital examination revealed a double os uteri, with but a single uterus. These two mouths—or rather what appeared to be two, were caused by a portion of the uterine tissue stretching across the otherwise normal os, and thus forming two openings.

The next discovery was a valvular orifice in the posterior wall of the vagina. This orifice commenced about one and a-half inches above the posterior commissure of the vulva, and led into a roomy canal, extending upwards and backwards, and really into the rectum. My patient had neither anus nor perineum, and nature not to be thwarted in her purposes, had instituted this new departure. In this case, then, we have the ordinary vaginal opening as the channel, through which must pass all fæcal matter, in common with all other normal discharges in connection with the genito-urinary system of the female. With the above mentioned exceptions, this woman was well formed and natural for her size in every other respect. She was delivered in a reasonable time of a fine healthy child. A few months after her marriage she aborted once. From an elder sister I learned that the above unique condition of affairs had existed from birth, and was consequently congenital.

Yours, &c.,

W. B. TOWLER.

Wingham, Ont., Feb. 10th, 1878.

ETHER IN SUSPENDED ANIMATION.

To the Editor of the CANADA LANCET.

SIR;—As the following case may be of interest to some of your readers, I send it for publication in the LANCET:—

In Dec. '77 I attended Mrs. C——, æt. 23, primipara. Recognized a face-anterior presentation, with anterior fontanelle low down. After 10 hours labor, pains flagged, and I then gave ether and applied the forceps, the head being in the middle strait. After 10 or 15 minutes traction, the delivery was effected. The child did not breathe, and so it was placed in a bowl of warm water, sprinkled on the chest with cold water, and Sylvester's method of artificial respiration was practised upon it. At the end of 10 minutes, estimated time, there was no sign of life. I then caught sight of my ether bottle upon the bed, and Verneuil's subcutaneous use of the drug in collapse floated across my mind. Having a hypodermic syringe, I at once injected between 3 and 4 minims of ether deep into the child's arm. Within a minute the child gasped, and in two or three minutes it was breathing well enough to enable me to cease the artificial respiration. We have all seen children suddenly "come to life" from the use of the classical means which were first used in this case, and also from mouth to mouth insufflation, a stinging slap on the nates, &c. Where the respiratory forces should begin at any moment, it is difficult to ascribe the exact value to the action of any stimulus, but in this case it certainly seemed to me that the child would never have breathed but for M. Verneuil's suggestion.

Should occasion require I propose further to test the value of the procedure. In this case no depression followed the stimulation, and no local trouble resulted from the injection.

Yours truly,

Edgar, Feb. 8th, 1878. N. A. POWELL.

LARGE STONE.

To the Editor of the CANADA LANCET.

SIR;—An article headed "LARGE STONE" on page 182, last number of the LANCET, induces me to send the following:—

On Jan 26th 1875, I removed by lateral operation a stone weighing two ounces and six drachms, from a boy fifteen years old, but who was remarkably small of his age. Recovery perfect. If the stone removed by Dr. Gross, in the article referred to, is considered unusually large for a boy, what will you think of this one?

Yours truly,

D. W. LUNDY.

Albany, Ill., Feb. 5th, 1878.

Selected Articles.

DISEASES OF THE NERVOUS SYSTEM.

A Lecture delivered at Bellevue Hospital Medical College,

BY C. E. BROWN-SEQUARD, M.D.

Gentlemen :—At the last lecture I referred to a number of cases, with the purpose of showing that any lesion in the side of the brain can produce the greatest variety of forms of paralysis—the greatest variety as regards the extent, the degree, and the persistence of paralysis. This, of course, has led a number of you to think it to be extremely difficult to make a diagnosis of the locality in the brain of the disease which produces paralysis. No doubt, it is extremely difficult, but as you will see, from what I shall say to-day, there are features which can lead to diagnosis of locality of lesion, even when what we observe is entirely in opposition to the views which are generally accepted.

But before I speak to you of those facts which lead to diagnosis of the seat of the disease that has produced the paralysis—the symptoms of the disease—I have a few more words to say upon a point which escaped notice in the previous lectures. It is this ; the theory published by Dr. Broadbent has been put forth with the view of explaining certain difficulties which we find as regards paralysis. As I told you yesterday, most cases of brain disease producing hemiplegia consist almost exclusively of paralysis limited to the arm, the leg, and to some of the muscles of the face. There are many parts of the body which escape paralysis in the immense majority of cases of disease of the brain. These parts are the muscles of the trunk, the muscles of the neck, those muscles which go from the trunk to the limbs—the arms or the legs. Those muscles escape paralysis more or less, rather more than less, in the immense majority of cases. Dr. Broadbent has tried to explain this fact in admitting that there are certain parts of our body which depend on a centre located in the medulla oblongata or at the lower part of the pons varolii, and which has the power to act upon both sides of the body. So, admitting that one side of the brain is destroyed totally, including that nerve centre-centre which is the corpus restiformis upon the same side, the corpus restiformis upon the other side is alone sufficient to move the two sides of the body, and thereby the muscles which have escaped paralysis. The view is certainly true in a great measure, but it is faulty in this : Dr. Broadbent, as well as most medical men, considers the corpus restiformis as a motor-centre. The reality is, as I hope to be able to demonstrate, that a small part of one side of the brain is sufficient for both sides of the body, not only for the muscles which escape paralysis but for the muscles of the limbs as well.

I now pass from this to what I have to say regarding the significance of certain symptoms in the diagnosis of the seat of the brain disease which causes paralysis. There is one fact, very important indeed for you to understand fully before I enter into details upon this point. As you well know, there are nerves arising from the base of the brain, nerves which serve as centres, which serve for general tactile sensibility, and also as nerves of motion. Then you must make a distinction between cases of paralysis of those nerves dependent upon disease which strikes at the very place from which those nerves arise, in which case the trunks of the nerve itself or its immediate roots within the base of the brain are implicated, and those cases in which these nerves are paralyzed when the lesion is beyond the place of their entrance into the base of the brain.

Suppose, for instance, a lesion occurs in the medulla oblongata in the immediate region where the root of a motor-nerve has its origin ; if the disease strikes there, it of course destroys some of the fibres of the nerve, and it destroys the cells also from which the nerve-fibres arise. But let the disease be located in another part of the brain—at a point beyond—where there are no nerve-fibres arising which form a connection with the nerve which goes down from the medulla oblongata, then you will have a result completely different from what you have when the cell itself of the motor-root is struck by the disease. In those cases of paralysis of nerves in the base of the brain dependent upon destruction of the cell which gives rise to the nerve-fibre, or striking the root itself before it reaches these cells, you have just the same result produced as if the nerve-trunk had been affected outside the brain.

Something quite different takes place when the disease is beyond the origin of these nerve-fibres. In what I have already said in a previous lecture with reference to paralysis of the muscles of the face, muscles of the eye, paralysis in the tongue, in the neck, and elsewhere, I had in view only those cases in which the paralysis depended upon disease inside of that zone or layer of nerve-cells which gave rise to the motor nerve-fibres going to the tongue, to the eye, etc. There is no question that, when you find disease in the base of the brain striking the nerve or its roots before they reach the cells of origin, there will be paralysis upon the same side of the body in which the disease is situated. It is quite evident that it must be so. You have a cause acting the same as if you had divided the nerve itself outside of the brain, and of course you have paralysis of the nerve.

In what I have now to say, you will find that what I have just mentioned is of the greatest importance ; I will illustrate at once the meaning of this. You will see that in case of disease of the pons varolii, for instance, a little above the place of

origin of the facial nerve—the nerve which acts upon the muscles which give expression to the face—there is a characteristic condition produced.

If the disease is upon the roots of the facial nerve, or upon the cells which give origin to these fibres of the facial nerve, the muscles of the face upon the same side of the seat of the disease will be affected. If the dieease is elsewhere as a rule, the muscles of the face upon the side opposite to the seat of the disease will be affected. So you see that in disease in the same organ, the pons varolii, you may have results just the reverse of each other. The face may be paralyzed upon the right or upon the left side; but as regards the limbs, as a rule, you will find them paralyzed upon the side opposite to the seat of the lesion. What I wish you now to fully appreciate is the fact that, when the disease strikes at the origin of the nerves, necessarily it produces paralysis in the nerve; that nerve may be the olfactory, the optic, or any one of the cranial nerves. In any of these cases the very same thing will occur with regard to the seat of the paralysis; it will always be upon the same side with the lesion.

DIAGNOSIS OF HEMIPLEGIA.

I come now to the diagnosis of various cases of hemiplegia. I must first point out the fact that disease of one-half of the spinal cord, as well as disease at the base of the brain, can produce hemiplegia, and how you are to determine where the seat of the disease is, is what I will try to explain. You may find two persons struck down suddenly with loss of consciousness, sometimes with convulsions—convulsions are not essential, however—and after there is recovery from the shock, you find that there is paralysis, in both cases, on one side of the body. We will suppose that the right side is paralyzed. One of these persons makes grimaces upon the side of the face corresponding with the side on which there is paralysis of the extremities; so you may be inclined to think that there is paralysis of the face upon the opposite side.

NEW POINT IN DIAGNOSIS.

This point in diagnosis, so far as I know, has not been mentioned except by myself, and as it is a constant phenomenon in certain kinds of lesion of the spinal cord, I wish you to be quite aware that in that case there is merely an appearance of paralysis upon the side of the face opposite to that on which there is paralysis of the limb. If you pay attention only to the appearance of paralysis of the left side of the face and on the right side of the body, and establish the fact that the man has had an attack of apoplexy, loss of consciousness, etc., you will certainly, and quite naturally, according to the teachings of science until now, be led to admit that there has been somewhere in the brain a lesion which has produced all these symptoms. That may be a mistake, or it may be correct; because lesion in one-half of the spinal cord near the medulla oblongata can produce all these symptoms. I will say at once that when you examine the face, you will find that the side which seems to be paralyzed is not the paralyzed side. You will find that there is no paralysis of the face upon either side in that case. You will find that the appearance of paralysis comes only from the fact that, on the side of the lesion in the spinal cord, there is simply a spasmodic state of certain muscles of the face.

In case of spinal hemiplegia, paralysis of one side of the body, depending upon disease high up, and limited to one-half of the spinal cord, you will find that there is a series of symptoms such as I mentioned a moment ago. You will find features which certainly will distinguish these cases from cases of hemiplegia, depending upon disease of the brain. If you examine the patient carefully, you find that there is paralysis, and, as I have supposed the lesion to be in the right half of the cord, the patient is paralyzed in the right limbs; but there is no diminution of sensibility. On the contrary, there is considerable increase of sensibility, as measured by the esthesiometer. The hyperæsthesia may be extremely great. Indeed, in the case of one of my dear friends, Mr. Charles Sumner, at the two points in the spine which had been injured by a cane in an assault made upon him in the Senate Chamber, both points of the instrument could be distinctly recognized, no matter how near to each other they were placed.

That kind of feeling—that of touch—may be increased considerably in many other cases; but in spinal hemiplegia the tactile sensibility is increased in the paralyzed limits to a considerable extent.

Other kinds of feeling are also increased. Painful feeling is often considerably increased, and sometimes it is so great that a mere touch produces a scream. There is also an increase in the power of detecting differences of temperature. There is lack of power of enduring the contact of anything very cold, or very hot, as these things will produce decided pain. There is besides an increased sensitiveness to tickling. But there is another feature which will assist in making a diagnosis between this form of paralysis and that form dependent upon disease in the base of the brain, and that is the condition of the muscular sense. When the patient has but little power of motion the muscular sense is very good indeed, and he will know perfectly well where his limb is without the necessity of placing the hand upon it to determine its location.

Now, in the contrasting condition, there is loss of sensibility of all kinds. The loss may be absolutely complete, so that the patient is not able to feel any blow, prick, tickling, galvanism, etc.

As regards the temperature in the limbs there is another distinguishing feature. You will find that the limbs are very much warmer where the muscles are paralyzed, and lessened in warmth upon the opposite side. There is then a double effect upon the temperature; increase upon the side of the lesion, and diminution upon the opposite side. But these are not the most interesting features of such cases. You will find that the face is warmer upon the side of the lesion, and that is because the fibres of the sympathetic nerves going to the blood-vessels of the head are divided upon that side of the spinal cord. There is higher temperature in the face, higher sensibility, and greater redness of the eye and ear. There is also a symptom to be observed in the eye; and that is dilatation of the pupil upon the side of the lesion. These are effects which we know will follow galvanizing the sympathetic in the neck. All these effects are found in connection with disease of one-half of the spinal cord.

The fact that the muscles are contracted is in consequence of the greater afflux of blood to the part; it is not due to changes occurring in the nerve centres, but to the local fact of being fed far more abundantly than in health. Hence they are in a state of greater tonicity, as it were; but there is no trace of paralysis on either side of the face. That fact will serve as a diagnostic feature between the form of hemiplegia depending upon disease of one-half of the spinal cord, and hemiplegia depending upon disease in the base of the brain. Besides there are a great many symptoms of disease in the base of the brain which do not exist with disease affecting one-half of the spinal cord.

I now pass to other facts. In cases of disease of one-half of the spinal cord, you will find that there is usually a feeling of stricture about one-half of the body at a level with the seat of the cord.

ZONE OF ANÆSTHESIA.

At that place there is something that can be recognized which is very interesting indeed, and which is in harmony with the view regarding the origin of nerve-fibres. As the lesion in the spinal cord necessarily destroys some nerve-fibres which do not supply the motor-trunk, there is a zone of paralysis of sensibility at the level of the injury in the cord. Some of the sensory roots are involved; hence the loss of sensibility in that circumscribed region. We have hyperæsthesia below and above the seat of the lesion, and a small zone of anæsthesia at a place where the lesion occurs, so that the body is separated into *three* zones—*two* of hyperæsthesia and *one* of anæsthesia. Nothing of this kind is present in hemiplegia depending upon disease in the base of the brain. You can already see that diagnosis can be easily established, and you will see this much more clearly as I come to speak of the symptoms of hemiplegia depending either upon disease of the medulla oblongata, or other parts of the brain.

GENERAL SYMPTOMS.

When there is disease in the medulla oblongata, or pons varolii, there are general symptoms which are of great interest, not so much for diagnosis, as for prognosis. They are important in deciding upon the chances for restoration to health, and the chances of death; and also the means of treatment are not the same as when the disease exists in other parts of the brain. These general features are that, according to the seat of the disease in the base of the brain, there are nerves implicated which show where the disease exists. Supposing it to be in almost the entire length of the base of the brain, from the origin of the optic bands down to the spinal cord, you will find that all the nerves which take their origin in that part are more or less implicated in the disease. If you know what these nerves are, you can easily understand what the symptoms will be. I will simply mention that as the *third* pair of nerves is implicated, certain results will be manifest in the eye, and you will find the pupil affected, and the motion of the eye will be affected. Other nerves are implicated, and the effects are exceedingly complex, but they are in perfect harmony with the known functions of the nerves, having their origin at the base of the brain. So the diagnosis may be perfectly clear, and you will find as a rule, that the paralysis, instead of being upon the same side, as in the case of disease of one-half of the spinal cord, is upon the opposite side of the body. If there is loss of feeling, it is where the loss of movement exists.

DISORDERS IN THE KIDNEYS, LUNGS, AND HEART, ETC.

But there are other features: there are disorders which take place in many of the organs of the body. The urinary secretion is disturbed; sometimes increased immensely, with or without the presence of sugar. When sugar is present, the quantity of urine is not so much increased as when the sugar is absent; but it may be considerably increased in quantity. We may have them in both forms of diabetes—insipidus and mellitus. These two forms of diabetes are found in connection with all diseases in the base of the brain, but they may exist in connection with disease very far from the brain. To my knowledge, these forms of diabetes never exist when the spinal cord is the seat of disease.

There are many other features. I have shown that lesions of the pons varolii, or medulla oblongata, affect the lungs almost at once. That is the fact in most cases in which the lesion is made in animals. I may say that it is frequently so in man.

One of the chief effects produced by lesion in the pons varolii in man is considerable congestion of the lungs. Another effect, which depends almost only upon lesion in the pons varolii where the crus cerebri comes into it, is hemorrhage into the lungs. This occurs very frequently indeed; sometimes it is slight, and sometimes enough to destroy life rapidly. It was known that hemorrhage into the lungs occurred in connection with hemorrhage into the base of the brain, but it had been supposed that it took place because of the same alteration in the walls of the blood-vessels in the lungs as was present in the blood-vessels in the brain. My friend Professor Charcot and Bouillaud made the great discovery that hemorrhage in the brain depended almost always upon the rupture of small aneurisms—miliary aneurisms. It was imagined, and it has been found to be the case, that the blood-vessels in the lungs also have the same kind of aneurismal dilatations, and it was thought that in those cases in which hemorrhage, either small or large, took place in the lungs, after having hemorrhage into the brain, it was dependent upon the same cause. Without doubt it is so in some cases, but, as a rule, when the hemorrhage in the lungs appears very quickly after that which occurs in the brain, it is produced in a direct manner by an alteration in the circulation in the lungs.

I have asserted that the breaking of blood-vessels in the lungs depends upon this change. The arteries and veins become so contracted that there is not a trace of blood in them, and then the congestion goes so far that a capillary breaks, and there is hemorrhage. It is one of the causes of death in disease in the pons varolii, or perhaps at other parts of the base of the brain.

This cause of death has not been sufficiently guarded against, and it very frequently happens that no examination of the chest is made in these cases. This is a fault which I myself have fallen into, but it should always be kept in mind that great alteration can take place in the lungs in consequence of disease in the base of the brain.

The opposite may occur, perhaps, in one out of ten cases.

We have, then, *first*, congestion of the lungs, and, after a time, there may occur, foci of inflammation in connection with acute disease in the base of the brain. As the patient has more or less difficulty of breathing, on account of the brain disease itself, the disease of the lungs passes unnoticed, and no local treatment is applied which could be of great service to the patient. I have no doubt that we may recall to memory a great many cases published as fatal cases of disease, occurring at the base of the brain, which terminated fatally, not because of the brain disease itself, but because of subsequent disease of the lungs, which passed unnoticed during life.

There is, therefore, in cases of disease of the brain, an effect, which is of great importance, produced upon the lungs. Another effect which is of great interest can take place. As you well know, the par vagum takes its origin in the medulla oblongata. And you know that if this nerve is galvanized, the heart's action is arrested. Well, acute disease in the medulla oblongata, or close to it in the pons varolii, will produce irritation of the par vagum, and may reduce the heart's action to such an extent as to prove fatal. You doubtless know that there are a number of cases upon record in which death was caused by pressure upon the medulla oblongata, from displacement of bones, or some other cause. There is this feature, then, in connection with disease in that region: that is, there is a diminution in the beat of the heart—a diminution in force rather than a diminution in speed.

There are other features belonging to lesion in those parts. As you well know, the œsophagus, the pharynx, and the larynx are supplied with nerves which arise from this region. There may be spasm in these organs. In a case which I shall always remember, for it occurred in the person of a most dear friend of mine, there was such a spasm in the œsophagus that it was absolutely impossible to feed him by the mouth; not even a tube could be passed through the œsophagus, so great was the spasm, and we were obliged to sustain his life by nutritious injections into the bowels. The material used was the fresh pancreas of an animal, with hashed meat. The fat is removed from a fresh pancreas, and the influence of the remaining portion upon nutrition is pretty nearly the same as if a series of meals were taken in the usual manner. In the case of my poor friend, life was maintained eight days solely by this process of eating.

There is, therefore, an effect produced upon these parts by disease situated at the base of the brain, as mentioned. There are other features of interest. You may diagnose very easily, for instance, whether there is disease present upon the origin of the trigeminus nerve by change in the state of the cornea. The cornea becomes somewhat inflamed and after a time the eye may be destroyed. You already know that Magendie has long ago shown that when the trigeminus is divided in an animal there will follow impairment of nutrition in the eye, and after a time the organ will be lost. Magendie also has shown that all the senses are affected by division of the trigeminus—the sense of sight, of audition, of olfaction, as well as the sense of taste. This conclusion of Magendie would not have been drawn had he been familiar with the phenomenon of the loss of function. When the trigeminus is diseased or divided, the nerve-fibres produce no action, and that result is quite sufficient to produce loss of sensation, and the nutrition of other organs of sense is disturbed by such result.

A blow upon the frontal nerve, for instance, may

be sufficient to cause loss of sight, and, besides, a considerable alteration in the nutrition of the eye. Irritation produces loss of all the senses, and in that case it may be from reflex action affecting the blood-vessels, thus changing the nutrition. Disease of the optic thalamus, for instance—a part far away from the origin of the trigeminus—can produce by its effect, through the trigeminus, an alteration of sensation, and an alteration of nutrition in the cornea and loss of the eye, the same as if the trigeminus itself was diseased or divided. Therefore, when you find loss of nutrition upon either side of face, and alteration of sensation upon that side, you can judge that the cause or lesion is upon the side where the trigeminus is disturbed.

Now comes something in the way of diagnosis that is of the greatest importance. In a case I found these symptoms associated with paralysis of the limbs upon the same side. I concluded, therefore, that the lesion was upon the pons varolii in the origin of the trigeminus, and I concluded so from the fact that there were present the changes in nutrition and sensation which I have just described. The patient died subsequently, and Dr. Edes, of Baltimore, found the lesion at the exact point at which it was thought to be situated. There was no special maturity in making the diagnosis, but I mention the fact simply to show that you may find disease upon one-half of the pons varolii producing upon the same side paralysis of motion and changes affecting the sensation and nutrition of the eye, upon the same side. But disease at the same point can produce just the reverse, and we may have paralysis upon the opposite side, anæsthesia upon the opposite side, and rigidity of the muscles. So you may have paralysis upon the same side with the lesion, or paralysis upon the opposite side. I will add that you may have motion lessened in that part, with clear symptoms belonging to the trigeminus, without paralysis in the trunk or in the limbs There is in this last case, perhaps, some difficulty in diagnosis. You may think that the trigeminus alone if affected, but it is not necessarily so; for a great part of the pons varolii may be destroyed without producing paralysis, except in the nerves which arise from that region of the brain. Those nerves have been most affected, but in some cases, one especially published by Stanley, a tumor had destroyed one-half of the pons varolii, and there was only incomplete paralysis upon the corresponding side.

The diagnosis in that case would have been clear, from the fact that the trigeminus was affected completely, and the eye was destroyed. There was also present a symptom which is not rare in connection with irritation of the trigeminus, and that is paralysis of the face. There is, therefore, no great difficulty in diagnosis of disease affecting these parts. Another feature you will find very frequently in these cases of disease at the base of the brain. You will find that there is, instead of paralysis of the limbs, anæsthesia or a great deal of hyperæsthesia.

ABSENCE OF CONVULSIONS IN DISEASE OF THE PONS VAROLII.

You will also find that there is a remarkable absence of symptoms. The pons varolii has been considered as a part perfectly able to produce convulsions. It is so in animals, and convulsions are readily produced by irritating that part of the brain; but it is not so in man. Disease there produces convulsions less frequently than disease elsewhere in the brain. So if you find that convulsions are not present, and there are symptoms showing that the nerves arising from this part of the brain are affected, you will almost certainly be led to admit that there is disease at that point. There is a part close to the pons varolii which may give rise to most interesting features, and indeed it is not rare that disease in the pons varolii produces some of these symptoms. It is that part which is close to the edge and unites the pons varolii with the cerebellum, the crus cerebellum. When this part is irritated, a rotary movement of the body is produced. It is not special to irritation of that part, however, but irritation of the crus cerebrum and other parts of the brain may produce the same kind of movement.

DIAGNOSIS OF DISEASE OF THE CRUS CEREBELLUM.

Diagnosis of disease of the crus cerebellum alone is usually very easy. Hemiplegia depending upon disease of the crus cerebellum may appear upon the same side or upon the opposite side of the body. As a rule, it appears upon the opposite side. But there are two cases out of the entire number, which is not large, of disease of the crus cerebellum, in which paralysis was present upon the same side. The crus cerebellum has been considered as the point of union of those parts of the brain which produce voluntary movements with those parts which produce sensation. So you see that in case of disease of one crus cerebellum you should have always complete paralysis of movement, and complete anæsthesia upon the opposite side of the body. This is absolutely false. Out of some thirteen cases of this kind upon record, complete paralysis is not at all frequent, and cases of complete anæsthesia are very rare—indeed, I know of only two such cases. The facts, then, are not in harmony with the theory that the crus cerebellum is a part containing all the motor and sensitive fibres going to the opposite side of the body. So little is that true that there are cases in which destruction of the crus cerebellum has occurred without paralysis at all. Certainly, there are ten cases on record in which the entire mass of the crus cerebellum has

been destroyed without producing paralysis upon the opposite side, and without producing anæsthesia. I have said paralysis in some of these cases *seemed* not to exist at all, but it is quite an essential matter that, in the future, more reliable means are employed to ascertain whether paralysis is present or not, than those which are usually employed.

PARALYSIS A CONSTANT SYMPTOM OF BRAIN DISEASE.

If you see a man walk about, see that he is able to stand firmly upon his legs, and that he grasps with both hands firmly, etc., you are at once inclined to think that there is no paralysis. I must say that, although there are many cases of disease of the brain in which there is not marked paralysis, my belief is that, in every form or kind of brain disease, were we in the habit of studying the patient more carefully, we should have a great chance of finding some degree of paralysis.

Most of the instruments employed for this purpose are exceedingly defective.

[A description of an instrument was given. The inventor is one of the Professor's friends. It gives a very clear measure of the strength of the legs, and it can be used to measure the strength of any part of the body.]

I do not think that we can find the exact strength a patient who has the brain disease possesses, unless it is measured by some reliable instrument. When I say that sometimes disease almost entirely destroys one corpus cerebellum, or any other part of the brain, without the production of anæsthesia or paralysis, I only mean that so far as the cases have been recorded, no paralysis have been noticed, but I suspect that some degree of paralysis was present.—*Med. Record.*

INJURIES OF THE HEAD.

BY JOHN ERIC ERICHSEN, F.R.S., F.R C.S.,

EXTRAVASATION OF BLOOD ON THE DURA MATER, &c.

GENTLEMEN,—I wish to direct your attention to a peculiar class of cases, which is amongst the most interesting of those that are connected with injuries of the head, both in the peculiarity of the symptoms and the accuracy with which the diagnosis can be made, and in which you can give absolute relief to the patient—I mean those cases in which there is an extravasation of blood between the skull and dura mater. They are a class of cases that engaged the attention of surgeons very many years ago. This subject attracted the attention of, and was very closely investigated by, surgeons of a past generation. You will find that we have really at the present day been able to add very little to the information that can be obtained from the memoirs of the French Academy of Surgery and the writings of Pott, Abernethy, and Sir Charles Bell. You will find in their writings much valuable information on all subjects connected with head injuries, and I cannot but fear that the study of the works of these great surgeons is too much neglected at the present time. But before I proceed to discuss these extravasations, let me relate a few cases which are interesting, amongst other reasons as showing what very slight injury may occasion a fatal extravasation.

Some years ago a little girl was going down stairs with her mother to dinner. She said, "I will go first mamma," and started to run down stairs, but she missed her footing and fell forward. Striking her head slightly against the wall, she felt a little dazed at the time, but went to her dinner, ate it, and afterwards felt slightly sick. She was sent to bed, slept soundly, and was dead next morning. There was a clot found between the dura mater and the skull on the side of the head that had been struck, but without any fracture.

Many years ago I was called to see a lady who had come up to town for a few days to amuse herself. She went to the opera, and in going down the stairs caught her foot in the train of a lady's dress. She fell forward and struck her head slightly against the opposite wall. She felt a little giddy, and said that she would not go into the theatre, that she would return home. She went to bed, fell asleep, and about ten in the morning, when the maid came to wake her, she found her so fast asleep that she did not like to disturb her; but about twelve o'clock the friends got alarmed, and they sent for a neighbouring medical man, and he came for me. I found her comatose, suffering from compression of the brain, and went home to get my trephines, but when I came back she was dead. A post-mortem examination was made, and we found a clot of blood the size of a small saucer on the side that was struck, between the skull and dura mater over the course of the middle meningeal artery, but without any fracture of the skull.

Some years ago a cabman was thrown off his box, and he became slowly comatose. Three days after the accident he was brought to the hospital. When I saw him he was suffering from profound coma, and there was some paralysis of the side opposite to that on which he had been struck. I cut down upon the skull, and found a starred fracture in the right temporal bone. I trephined him, and found a large clot of blood under the bone. Some blood welled out rather freely, evidently from the middle meningeal artery. The flaps of scalp were laid down, and he made a very good recovery. During his convalescence he presented one of those peculiar psychological phenomena I mentioned in a former lecture. He commenced to swear "like a trooper." Some four or five years after this, one day, as I was going home, a cabman came up, touched his hat to me, and said, "Do you recollect

me, sir?" I said "No." He said "I am Jim. I dare say you recollect me, sir, because I used to swear so horribly." I found that he was quite well, and able to go about his ordinary avocation as it nothing had occurred, though he had a deep depression at the seat of the trephine opening.

On the 11th of December a similar case was admitted into the hospital. The patient was a brewer's drayman, and while driving his cart on the evening of the 11th fell off from the driving seat into the road, a crate also falling with him, and bruising the right side of his face and head. He got on to his box, and drove some distance, then, feeling giddy, lay down in the van, and in about half an hour he was noticed by his mate to be quite unconscious, and was driven at once to the hospital.

On admission, the patient was completely unconscious; the pupils were widely dilated and fixed; stertorous breathing, 18 per minute; complete general paralysis; pulse very full and tense, 32 per minute; slight bleeding from right nostril; over the back of the left parietal bone slight puffy swelling; left temporal fossa fuller than right, puffy. A stimulant enema was given, and at once returned.

Mr. Beck came about 10 P.M., examined the patient, and found his condition unaltered. He at once trephined over the left middle meningeal artery, an inch and a half above the zygoma, and an inch and a half behind the left external angular process. Here he found a fissure in the bone, and on removing the crown, the groove of the artery was found upon it, divided by the fissure. Fluid blood and soft coagula at once w .led up from the wound. There was a very large clot underneath the skull, which was removed by the lithotomy scoop. The dura mater was uninjured, depressed from the bone for two inches, and separated as far as the finger could reach in every direction. At first very free hæmorrhage occurred from the inside of the skull, the blood welling up; no artery could be seen or felt. Compression of the common carotid did not appear to have any effect on the hæmorrhage, which after a time got very much less. During the operation the patient's pulse rose to 60 per minute. A fold of lint wet with iced carbolic lotion was applied to the wound. Pulse was much smaller, irregular, occasionally intermittent, 52; paralysis and other symptoms remained in the original condition.

Jan. 12th at 7 A.M. patient vomited; at 8 A.M. he died.

The following notes are taken from the case-book as entered by the ward clerk:—

Autopsy, by Mr. Beck, five hours after death.—Head: A little blood under the scalp on the left side, and in the left temporal muscle. A fissure was found running from just above the left parietal prominence into the trephine wound, and from the further side of that downwards and forwards, ending just below the outer end of the lesser wing of the sphenoid bone. At one place in the very thin squamous bone it was starred. The trephine had been used two inches behind the external angular process and an inch and a half above the zygoma. The head was then opened. Longitudinal sinus healthy. Surface of brain dry; convolutions very flattened. A slight bruise on the under surface of the anterior end of the right temporo-sphenoidal lobe just opposite the point struck. Another slight bruise in the under surface of the same lobe on the left side just beneath the point struck. No meningeal hæmorrhage. A considerable quantity of clear fluid in ventricles; no blood. Veins of Galen distended with blood. The left corpus striatum projected considerably further into the ventricles than the right. No hæmorrhage into or laceration of any part of brain or medulla; nothing to account for persistence of compression symptoms apart from the clot under the skull. The dura mater was found to be detached from the skull on the left side for a space several inches in diameter, extending forward to the small wing of the sphenoid, downward to the petrous portion of the temporal bone, upward nearly to the middle line, and backward to the middle of the posterior fossa of the skull. It was separated some distance form the skull, and the space filled up with a soft black clot about the size of the hand. The middle meningeal artery was found to be torn, but not divided, at a point opposite to the starred fracture, just behind and beneath the small wing of the spheniod. Lateral sinus uninjured. No other injury detected.

Now, let us briefly consider the main facts of this very typical case. The man, when admitted, was found in a state of profound coma, slow pulse, and breathing eighteen times a minute, &c. Mr. Beck was sent for, and finding him in this condition, very properly cut down upon the left temporal fossa, and some blood was seen oozing from a fissure in this region. A fissure was seen in the bone, blood was oozing from this fissure, and it was evident, from the gradual supervention of coma, that the man was suffering from cerebral compression, the result of extravasation. The trephine was applied in such a direction as to cross the course of the middle meningeal artery, a large clot was scooped out with the lithotomy scoop, blood welled up, and it was difficult to get it all away, but the finger could be passed up between the dura mater, which was separated several inches. The brain did not rise and push out through the large trephine opening, nearly an inch in diameter, as if there had been the natural upheaving of the brain. The man continued in a somewhat comatosed and paralysed state, and died the next morning. On examination after death, the dura mater was found injured, a starred fracture was discovered, and the middle meningeal artery was found torn at a point opposite the fracture, and had been torn as it passed in the canal in the parietal bone, by the same force which had occasioned

the fracture. Well, here is a typical case, then—as typical a case as it is possible to have,—of a wound of the middle meningeal artery giving rise to extravasation of blood. Just let me go over what took place.

In the first place, the man received a blow from falling off his box. He was concussed, but he completely recovered his concussion; so much so as to be enabled to drive, and that shows that he was completely free from paralysis. After having driven some little distance, he felt giddy, and resigned the reins to his companion, lay down in the bottom of the van, and gradually became comatose. He was brought to the hospital, and found in a state of profound coma; widely dilated pupils and slow pulse —in fact, he was exactly in the condition of a man with atheroma of the arteries of the brain, one of which had given way and occasioned fatal apoplexy.

The trephine was applied to the left temporal fossa. Now, why was it applied to the left temporal fossa? For this reason: because it was more bulging than the right. And why was it more bulging than the right? Because there was a fissure through which blood was oozing, and had given rise to the projection of the temporal muscle. The trephine was applied, and it was applied in the course of the middle meningeal artery. Now, gentlemen, if any of you were asked the question elsewhere, How would you apply the trephine so as to strike the middle meningeal artery? you would give this answer: you would take a point an inch and a half above the zygoma, and an inch and a half behind the external angular process of the frontal bone, and where these two points meet you will find the middle meningeal artery.

A large clot was exposed; and when you expose a large clot, what are you to do? Leave it or remove it? The better plan will be to remove it. Sometimes the brain will upheave and push out the clot; but sometimes it does not upheave. In this case the brain did not upheave, and the man died speedily comatosed. You should remove the clot, and, having removed the clot, what do you do with the middle meningeal artery? If it is torn, as in this case, you cannot stop the hæmorrhage; and there is no necessity to do so; you will find the hæmorrhage cease of itself. There is a very curious condition connected with this middle meningeal artery, and it is this: when it is wounded in such a place, and is exposed, it bleeds a little, but it does not bleed *per saltum;* the blood merely wells out from it, and the hæmorrhage very soon ceases. Probably the artery contracts; but in this case it did not do so, because the artery was only partially divided; it could not contract and retract.

Now these are some of the chief points in connexion with these cases; but there are one or two others to which I have to direct your attention. One is, the size of these clots; they are very large. This one, after it had been removed, weighed three ounces and a half. The largest I have found was somewhere about four ounces and a half. They are very thick in the middle, and flattened out at the edges. Usually they are black, and there is very little serum in connexion with them. Well, now, there is a last point to which I wish to direct your attention. When the finger was introduced, the dura mater was found to be separated to a considerable extent. The man did not live many hours after the accident, and this large clot was extravasated after an hour or so. This leads me to a brief discussion on the causes of hæmorrhage on the dura mater, and the cause of the separation of the dura mater from the skull. I need scarcely tell you that the dura mater is the internal periosteum, so to speak, that upon the dura mater the vessels that supply the cranium ramify, and that the dura mater is very closely applied to the skull. In post-mortem examination you will find that you have to tear the dura mater from the skull, it is so closely adherent to the bone that lies immediately upon it. This has a very distinct bearing upon the cause of these extravasations of blood. They are very commonly attributed to rupture of the middle meningeal artery, and, in some cases, with justice. But there are cases in which you get these symptoms without any laceration of the middle meningeal artery. The vessel, after death, is found lying uninjured in its osseous canal.

The explanation of these cases given by Sir Charles Bell many years ago showed experimentally how these extravasations are occasioned. He took a wooden mallet and struck a forcible blow upon the side of the head of a body in the dead-house. On removing the skull-cap he found that the dura mater was detached from the seat of the blow, although there was no fracture. He went further than this; he made the same experiment upon another subject, and after having made it he injected it with soft size. He injected this into the arteries, and found, after the size had been allowed to cool, that it had become extravasated, and had formed a large clot between the dura mater and the skull. There you get the exact condition of things that we meet with in the wards and operating theatre —namely, a separation between the dura mater and the skull, and an extravasation of blood between the dura mater and skull where they are separated. From these interesting observations it would appear that there are two distinct sources of hæmorrhage between the dura mater and skull. In the first case the middle meningeal artery is torn across by a fracture travelling across the anterior inferior angle of the parietal bone; and in the second case, in which the artery is not torn, but an accumulation takes place from the smaller branches that get torn at the time the shaking occurs which separates the dura mater from the skull, and which allows oozing to go on, and produces a slow supervention of coma —what you may call "surgical apoplexy." It has

been supposed that the separation between the dura mater and skull was effected by the impulse of blood driven out from the torn middle meningeal artery which pushes away the dura mater from its connexions with the skull, and as it pushes away the dura mater the cavity so formed is filled with blood. Sir Charles Bell conclusively proved, by the experiment to which I have referred, that separation of the dura mater was the primary condition; and there can, I think, be little doubt that the detachment of the dura mater is the result of the blow on the head, and the filling is the consequence of that detachment, and that it could not take place if the detachment had previously occured. The vacant place gradually gets filled up with blood, more rapidly if the trunk of the middle meningeal artery be torn across, when it will become full in the course of half or three-quarters of an hour after the accident. When the main trunk escapes, and it is only the terminal branches that get torn, you get that set of cases in which the accumulation of blood goes on much more slowly, and only compresses the brain to such an extent as to give rise to coma in the course of several hours.

Now there is a third condition, and that third condition is a very important one. I will relate one case, and report the post-mortem of another. Last spring I was called to see a gentleman living a few miles from town, who was out riding with his daughters when his horse picked up a stone. He let his daughters go on, and got down to see what was the matter, but finding that their father did not follow them the young ladies returned, and found him lying on the ground in a state of insensibility. The precise nature of the accident did not transpire, but it is probable that the horse turned its head and struck him when he was trying to remove the stone. Anyway he was seen and attended to immediately after the accident; not more than two or three minutes could have elapsed, but yet abundant hæmorrhage had occured. There was a large pool of blood in the road, and blood was welling freely out of his left ear. The daughter took his head on her lap, and her habit was soon saturated with blood. Some assistance was got from a neighbouring cottage, the bleeding ceased, and in the course of an hour or so he was able to walk to a neighbouring railway station, took a train for some miles, and afterwards walked from the station home, a distance of about a quater of a mile. There was no question about the quantity of blood that had been lost, because the young lady's habit was soaked through and through, and a large quantity lay in the road as well. I saw him the same evening. He was somewhat concussed, but had no paralysis, no coma, no dilatation of pupils, and no signs of intracranial extravasation or compression. The bleeding from the ear had ceased, and he thought there was nothing much the matter with him. He remained very quiet under my care and that of Mr. Evans, of Hamstead, for some weeks. He made a slow recovery, but apparently a very good one, the only trouble left being deafness of the ear on the injured side. At the end of a couple of months or so he was able to go to the city, against our advice, however, but he did do so on some business matters of importance. He now gradually became melancholic, and got religious delusions. It was thought that a change of air would be of advantage, and he went to Scotland with his brother, and in about a week he suddenly got worse, had some epileptic seizure, and died in a very short time.

There was, unfortunately, no post-mortem examination in this case, so that we could only guess at the source of the sudden and copious hæmorrhage. But in the next case which I shall relate there was a post-mortem, and in all probability the post-mortem in this case throws some light on the one just given. I will read it to you as reported in the case-book, and from Mr. Beck's notes.

On Aug. 16th, W. P——, aged about thirty-two, received a severe blow on the left side of the head from some bars of iron projecting beyond a railway truck. On admission he was unconscious, but struggled when the wound was examined. The wound was about two inches in length and irregular in shape, and situated about two inches and a half above the left mastoid process. On examination with the finger, a large piece of bone could be felt to be deeply depressed, the upper part being depressed below the lower. A small loose fragment could be seen. This was removed with a pair of forceps, and sufficient room was so obtained to insert an elevator beneath the depressed fragment. The moment it was raised, a stream of blood about as thick as the top of a finger, and rising to the height of about three-quarters of an inch, poured out of the wound. The depressed fragment was immediately seized in a pair of sequestrum forceps, and pulled out. It was about two inches and a half in length by one inch and a half in breadth; it included the lower and posterior part of the parietal bone, but the groove for the lateral sinus was not included. Its surface was covered in part by the fibres of the temporal muscle. It was now seen that the blood came from under the lower margin of sound bone, and, in order to arrest it, plugs of lint had to be pushed in between the dura matter and the bone. From the situation of the fracture with relation to the lateral sinus, it was evident that the depressed fragment had been driven downwards and inwards, and its point had lacerated the sinus, but was partially plugging the wound it had made. On raising the fragment, the blood burst out through the wound. The fracture was just above the sinus, and the depressed fragment was driven downwards, and inwards into it. The plugs of lint inserted in order to stop the bleeding lay in the same position, and instead of pressing together the two sides of the sinus, they propped the

wound open and projected actually into the cavity of the sinus, a condition almost absolutely certain to cause decomposition and breaking down of any clot that might form, and so give rise to septic embolia and pyæmia.

If the surgeon in charge could possibly have fully comprehended the situation, the proper line of practice would probably have been to cut away the bone with the trephine or Hey's saw till the sinus was brought fully into view, and then to apply direct pressure. This operation might have been easily performed while the plugs were arresting the hæmorrhage. But such minute diagnosis is impossible. On the fourth day the temperature rose to 102°, and he had a rigor. On the fifth day the plugs were removed, but the blood poured out just as at first. The plugs were immediately re-applied. On the same day convulsions commenced. They began by twitching of the right side of the face and turning of the head to the right side; then the right arm twitched, then the right leg, and finally the right arm. At this time there was some evident want of power in the right side, but this disappeared in a few days. He had become more conscious, and seemed to know his name when spoken to. On the sixth day he had twenty-seven convulsions. Temperature rose to 104·5°, and he had another rigor. The convulsions continued till the eleventh day, when they ceased. He had then regained consciousness to a great extent, knew his wife, and could answer questions. On the tenth day another attempt was made to remove the plugs, and the greater part was got away, but on trying to remove the deeper part hæmorrhage again commenced, but ceased at once on applying a new pad over the remnant of the old one. On the fifteenth day the plugs were successfully removed. The symptoms of pyæmia were, however, now well marked, and the patient ultimately died of this disease on the 31st day. A few days before death, a large abscess formed in the neck below the mastoid process, on squeezing which, pus could be made to pour out from the hole in the skull.

The post-mortem showed the conditions above described in the bone and sinus. The sinus was not firmly occluded, being filled on each side by soft decolorised putrid clots. This condition of thrombosis and decomposition of the thrombus had extended into the mastoid vein and through the mastoid foramen, and it was this that had caused the abscess in the neck, on squeezing which the pus found its way by the mastoid foramen into the lateral sinus, and from that through the opening in it into the wound in the head from which it flowed. The rest of the post-mortem was characteristic of the pure embolic form of pyæmia. Every organ of the body was typically healthy, except the lungs, which were riddled with secondary abscesses, evidently of embolic origin. The kidneys presented the usual swelling found after death with high temperature.

Now here was a case, then, of extensive intracranial hæmorrhage, not from an artery but from a sinus—one of the venous sinuses; and you can easily conceive that if there had not been a very free outlet to this blood it might readily have accumulated within the cranium, and you would have had compression of the brain from venous blood, as you got it in the other case from arterial blood. You got in this case that peculiar train of symptoms that used to puzzle the older surgeons—namely, the occurrence of pyæmia, and the tendency to secondary deposits, especially in the liver. There was no doubt of the pyæmia in this case, and it was due to the large wound of this venous sinus, and the consequence of a plug which could not be removed, leading to general blood-poisoning.

There is only one point more that I will speak about to-day, and it is that these cases of blows on the side of the head with detachment of the dura mater seem also to explain the occurrence of intracranial suppuration. It has been well-known to surgeons that after blows on the side of the head without fracture an abscess will form between the cranium and the dura mater. That abscess no doubt forms just as the clot does in the vacant space between the cranium and the detached part of the dura mater, but in order that it may form something more is necessary than the mere detachment of the dura mater—the mere detachment of the dura mater will not give rise to abscess. These abscesses only form if the portion of skull which has been struck loses its vitality, just as we get acute subperiosteal abscess on the tibia of a child. The stripping off of the dura mater, which is the chief organ of supply of blood to the cranium, is not, however, sufficient, because the cranium receives blood through the anastomoses of the diploe, and also receives blood from vessels that take their origin from the exterior of the skull. In order that abscesses should form you must have the periosteum stripped off, and you have this stripped off at the same time that the dura mater is detached. You will have the vascular supply of the bone so seriously interfered with, both from within and from without, that it loses its vitality, and thus, like all necrosed bone, becomes a source of irritation and of abscess.—*The Lancet.*

THE BLOOD IN DIPHTHERIA.—MM. Bouchut and Dubrisay communicated to the Paris Academy of Science (*London Med. Record*) the results of the counting of the blood-corpuscles in diphtheria. The numerations were made by Hayem's process; and the writer proved that in diphtheritic angina the number of white corpuscles is considerably augmented, whilst that of the red corpuscles is diminished. The increase of the white corpuscles varies directly with the gravity of the disease.—*Clinic.*

THREE CASES OF STRANGULATED INGUINAL HERNIA; OPERATION IN EACH CASE WITHOUT OPENING THE SAC; RECOVERY.

Under the care of Mr. Geo. Lawson. Middlesex Hospital.

An operation was performed in each of the three cases of strangulated oblique inguinal hernia here recorded, and the protruded intestine returned without opening the sac. When the hernia can be reduced by a simple division of the external stricture, and without exposing the intestine, the patient is naturally exposed to far less danger than when the sac is opened; but, unfortunately in a large number of cases of strangulated hernia, and especially in the inguinal variety, it is absolutely necessary to open the sac, either to relieve the stricture within the sac, or else to ascertain the condition of the bowel, in order to decide whether it is advisable or not to return it within the cavity of the abdomen. It is important to note that all the patients were taken to the hospital at an early stage. In the first two cases the symptoms of strangulation were most acute, but as only four or five hours had elapsed from the first symptoms of strangulation, there was reason to hope that the bowel was not much damaged, and that if it could be returned it would soon recover from the effects of the constriction to which it had been subjected. These cases illustrate very clearly the advantages of an early operation in all cases of strangulated herina.

In Cases 1 and 2 the symptons were so acute that there was reason to fear that if the operation were delayed some hours a fatal result would follow. In Case 2 the strangulation had existed only four hours, and yet the bowel was evidently considerably damaged, for pain, tympanitis, and vomiting continued for three days after the operation, but gradually yielded to fomentations and opium. All the patients recovered.

Case 1. *Strangulated oblique inguinal hernia; operation without opening the sac; recovery*—William K——, aged sixty-four, a labourer, was admitted on July 9th last, suffering from a very acute strangulation of an inguinal hernia on the right side. The hernia had existed since the previous September, but was easily reducible by the patient himself. He had never worn a truss. On the evening of his admission into the hospital, whilst walking, a large portion of the bowel suddenly came down into the scrotum. Pain and vomiting quickly followed. When he reached home he made many trials to return the hernia, but failed. The pain and sickness increasing, he was taken to the hospital. Ice was applied to the tumor, a full dose of opium was given by the mouth, and gentle taxis was applied by the house-surgeon. Although only four hours had elapsed since the descent of the hernia, the symptoms were most intense. The belly was tympanitic. The tumor, the size of the fist, was very tense and tender. There was severe pain in the abdomen, accompanied by stercoraceous and almost incessant vomiting. Mr. Lawsom was sent for, and determined at once on operating. The patient having been put under ether, a small incision, about an inch and a half in length, was made over the neck of the tumour, and the external ring, which was tightly girting it, was divided, but the sac was not opened. With a little manipulation, the contents of the sac were returned into the abdomen. The wound was closed with two sutures, and a pad, with a little weak carbolic acid lotion (one part in a hundred of water) was applied, with a bandage, and the patient placed in bed with his legs bent over a pillow. All symptoms ceased immediately after the operation. The bowels acted on the eighth day after a dose of castor oil, and on the twelfth day the wound was completely healed, and a truss was ordered.

Case 2 *Stranglated oblique inguinal herina; operation with opening the sac; recovery.*—William L——, aged thirty-eight, coachman, was admitted on Nov. 8th last, suffering from an acutely strangulated inguinal hernia. He had been ruptured for over twelve months, but had never worn a truss, and had been always able to return the hernia himself. About two hours before his admission he was riding a horse, when the hernia suddenly descended, but this time it was much larger than on any previous occasion. He went home and endeavoured to reduce the hernia, but without success. As the belly was very painful, and he began to vomit, he was taken to the hospital, where ice was applied to the tumour, a full dose of opium given internally, and a little gentle taxis tried. The symptoms, however, rapidly increased, the pain in the belly became very severe, the vomiting stercoraceous and frequent, and the tumour, about the size of an orange, very tender to the touch, and tense. Mr. Lawson saw the patient between four and five hours after the descent of the hernia, and as the symptoms were urgent, at once decided to operate.

The patient having been put under ether, an incision was made over the neck of the tumour, upon the external abdominal ring, which tightly gripped the hernia. The ring was nicked freely with a hernia-knife, and the intestine returned into the belly without opening the sac. The wound was closed with sutures, and a pad of lint, wet with a little weak carbolic-acid water, was bandaged firmly over the wound. Half a grain of extract of opium in a pill was given every four hours. He was sick three times after the operation, but next morning he felt easier, and the pain in the belly was less.

On the 10th he was still frequently sick, but vomited only the contents of the stomach. Fomentations to the belly were applied, and opium pills continued. The wound looked well, and was nearly united. On the 11th the sickness had ceas-

ed, but there was still pain in the belly, which was rather tympanitic. On the 12th the tenderness of the belly had passed away, and the opium pills were omitted. The patient continued from this time to do well. On the 21st, twelve days after the operation, the wound was quite healed. A truss was ordered, and on the 30th the man left the hospital.

CASE 3. *Strangulated oblique inguinal hernia; operation without opening the sac; recovery.*—Edward W——, aged twenty-three, a porter, was admitted on Dec. 4th last suffering from a strangulated oblique inguinal hernia of the right side. He was ruptured last Easter for the first time whilst lifting a heavy weight. He had worn a truss ever since. On the morning of his admission, at about 6 A.M., whilst coughing, the hernia again came down, and he was unable to reduce it. Feeling sick, and having pain in his belly, he applied to the hospital, and was admitted at about 8 o'clock, two hours after the descent of the rupture. Ice was applied over the tumour, opium given by the mouth, and the taxis was tried, but without success. As the symptoms were not urgent, this treatment was continued until 2 o'clock, when Mr. Lawson saw the man. By this time undoubted symptoms of strangulation had set in; there was then a tense irreducible inguinal hernia filling the right side of the scrotum. There was dragging pain in the abdomen, extending downwards from the umbilicus, together with regurgitant vomiting of dark-green bilious matter.

As the symptoms were now becoming urgent, Mr. Lawson decided to place the man under ether, and, if he did not succeed in returning the hernia by taxis, to operate. Ether was accordingly administered, and as the hernia would not yield to moderate taxis, a small incision of about one and a half inches in length was made over the tumor upon the external abdominal ring, which was apparently the seat of constriction. This was divided, and the bowel was returned within the abdomen without opening the sac. The wound was closed with two sutures, and dressed as in the other two cases.

The patient received immediate relief from the operation. The pain and vomiting ceased. On the fifth day after the operation the bowels acted voluntarily. On December 20th the wound was healed. On December 26th the patient left the hospital quite well, and wearing a truss.—*The Lancet.*

THERAPEUTIC USE OF IODOFORM.

Locally, iodoform, as a dry powder, brushed lightly over the surface with a moistened camel-hair pencil, has been for three years my almost invariable treatment of venereal sores, especially the local chancre. During the last few months, I have often substituted for the dry powder an ethereal solution (one part of iodoform in six or eight of ether). The sore is touched or dabbed with a pencil dipped in the ethereal solution, according to its size and depth, lightly or copiously. The ether quickly evaporates, leaving a thin pellicle of iodoform, that as effectually stays the spread and produces healing of chancres as does the more copiously applied dry powder. Thus the surface is covered more exactly, and the disagreeable smell of the iodoform is too faint to attract attention. The sore is well washed with water and dried before the idoform is applied, and the surface is lastly protected by a bit of dry lint. When the secretion is abundant, the dressing must be renewed twice daily, but in three or four days the amount of discharge becomes so scant that one dressing *per diem* suffices.

In this way, venereal sores heal quickly. Pain subsides at once; the sore is well in a week or ten days, and the chances of consecutive inoculation or bubo are greatly lessened. In a very few cases, the application of iodoform gives momentary smarting, which is very bearable; even the ethereal solution does not hurt, and usually the patient declares the application to be quite painless. I avoid using iodoform on inflamed sores, or on simple granulating wounds; but indolent non-specific ulcers are rapidly improved by iodoform locally applied.

Lately, I have given iodoform internally with great benefit. It acts more rapidly than potassic or other iodides, and, judging from experience thus far, is as readily borne as are those salts. I have given it in one-and-a-half-grain doses as a pill with extract of gentian. Three pills are given each day, increasing gradually till eight or ten pills are taken in twenty-four hours.

I have used it with excellent effect in cases of obstinate syphilitic ulceration of the tongue, where the dorsum is covered with rugged thickened epithelium, which is constantly splitting into deep fissures, and thus causing continual severe pain to the patient. This affection is often quite insensible to mercury, alkaline iodides, or arsenic— the remedies usually beneficial. In three of these obstinate cases, where I had been treating the patients at intervals for years with the remedies just mentioned with little lasting benefit, iodoform-pills have acted like a charm. Pain, immediately lessened, in two or three days ceased wholly; and the fissures healed rapidly, while the tongue soon shrank to its natural size. How long the relief will endure, time alone will show; but any interval of only apparent cure of this very painful affection is a great blessing to the sufferer, and time is given for the exhibition of mercury if required. In December last, I had under my care in University College Hospital a patient with ulcerated and protruding gumma of the left testis, non-ulcerating gumma of the right testis, and ulcerating gummata of the skin

over the upper end of the right tibia, with other syphilitic affections. Iodoform was administered in pills, and water-dressing applied to the ulcers. Rapid healing and subsidence of the swellings took place, notwithstanding that, when the dose of eight pills *per diem* had been reached and administered for three days, an outbreak of pyrexia, coryza, and iodic acne rendered it necessary to drop the drug completely for a short time. In three weeks, the patient left the hospital almost healed, and continued his treatment as an outpatient. Again, a lady who has during the last two years consulted me occasionally for intensely agonising pain in the head caused by syphilitic pericranial and cranial disease, for which a customary dose was thirty grains of sodium iodide three times daily, was at once relieved of pain by the iodoform pill taken three times daily, though on the third day, nausea became too urgent to allow the iodoform to be continued in that quantity; it was at first diminished till pain ceased, and then discontinued altogether. This small experience has satisfied me that in iodoform we have a very useful addition to our store of weapons for fighting syphilis. Further observation will enable us to apply it more exactly and when most suitable.—*Dr. Berkeley Hill, in Brit. Med. Journal.*

CHLORAL-HYDRATE IN DELIRIUM TREMENS.

A short time ago, I was almost despairing of a case of delirium tremens. The man was most violent, and in a fearful state of excitement; and the remedies adopted appeared only to increase his activity and make him more and more unmanageable. The treatment had been Battley's solution in half-drachm doses; afterwards pure solution of the hydrochlorate of morphia by subcutaneous injection, as much as one grain repeated every two hours. There was no vomiting of the mixtures given on any occasion; these being, in addition to the liquor opii sedativus just mentioned, half-drachm doses of tincture of digitalis given every two hours, etc. After two or three days of the above treatment, and no improvement taking place, I determined to try the chloral-hydrate. Accordingly at 5.10 a.m. I gave him half a drachm (thirty grains), and the same quantity at 5.40. At 6.00, he had a subcutaneous injection of half a grain of morphia. At 6.10, forty grains of chloral were given; at 6.25, two-thirds of a grain of morphia were injected; and at 7.45 he was asleep. The man slept for eight hours, and awoke without headache or other unpleasant feeling except great thirst. He was now supplied with good nourishing food (beef-tea, etc.), and he was put out walking next day. The quantity of the chloral given was one hundred grains, and of morphia one grain and one-sixth, in the space of an hour and fifteen minutes. Previously to the administration of chloral, the pupils were contracted to a point: an indication, of course, that the previous mixtures had been absorbed, but, as we have seen, with the effect only of increasing the excitement. Considering that the preparations of opium given previously had not conduced to somnolency, I attribute this condition to the chloral-hydrate chiefly, if not entirely. In another obstinate case of delirium tremens, in which the usual treatment by digitalis, morphia, etc., was ineffectual, I had recourse to chloral, repeated every ten minutes till one hundred and sixty grains had been taken. The patient then fell over, and, after sleeping for seven hours, was, on awaking, altogether a changed man.

I may add that, during the first two doses, there is always increased excitement, the patient becoming garrulous—indeed, *intoxicated*, to all appearance; but this soon gives place to thick speech, inarticulate mumblings, and peaceful sleep.—*Dr. J. Farrar in Brit. Med. Journal*, Jan. 26, '78.

SLEEPLESSNESS AND ITS TREATMENT.

Dr. Ainslie Hollis, in writing on this subject, maintains that, although the quantity of blood in the brain is diminished during sleep, this diminution is not the sole cause of slumber, for we may have the former without the latter. An increase in the cerebral blood-supply, however, may produce wakefulness, as in the paresis of the cerebral vasomotor nerves from exhaustion. Sense impressions have the same effect by the continual stimulation of the higher nervous centres. An increase in the velocity of the blood-current through the brain is a frequent cause of wakefulness, as in the irritable and hypertrophied heart. The wakefulness of anæmia is ascribed by Willemin to changes in the nervous elements of the brain, and a consequent modification of the circulation therein.

The treatment for wakefulness he classified under two heads:

1. The induction of natural sleep.
2. The production of narcosis, or artificial rest.

One of the most efficient means of inducing natural sleep is the application of mustard plasters to the abdomen. According to Schuler, this produces first dilatation, and subsequently contraction of the vessels of the pia mater; changes due to the constriction or dilatation of the peripheral current-areas of the skin. Preyer, of Jena, advocates the administration of a freshly made solution of lactate of soda, or of some milk, or whey, on the hypothesis that sleep may be induced by the introduction of the fatigue products of the body. Where the insomnia depends upon brain exhaustion, Dr. Hollis recommends the administration, just before

bed-time, of a tumblerful of hot claret and water, with sugar and nutmeg. The alkalies and alkaline earths are useful when acid dyspepsia is associated with insomnia. Electricity has been used in the paresis of the vaso-motor nerves due to an overworked brain. In hot weather, sprinkling the floor of the sleeping apartment with water lessens the irritant properties of the air, adding much to the comfort of the sleepers; possibly the quantity of ozone is at the same time increased.

The artificial rest obtained by the use of narcotics seems to be due to a direct interference with the functional activity of the nervous system. Dr. Hollis does not consider the bromides to possess hypnotic properties, although they undoubtedly act as sedatives on the nervous system, and as such may occasionally induce sleep.—*The Practitioner.*

PARACENTESIS OF THE PERICARDIUM, WITH AN ANALYSIS OF FORTY-ONE CASES.

Dr. John B. Roberts,[1] of Philadelphia, gives an interesting *résumé* of this operation from the earliest times, with the indications for treatment and the general results that may be expected. Riolan first proposed it in 1649, and Romero performed the first successful operation at some time before 1819. Paracentesis is indicated when the effusion is large and threatens to destroy life, ordinary treatment failing to produce absorption. The period that the surgeon must allow to elapse before tapping, is as yet undecided. As a method of giving relief in chronic cases it is probably no more open to objections than is excision of the breast or tongue for cancer. The particular method of operating is now tolerably uniform. A small aspirating needle is to be used,—so small that it simply makes a fine puncture that would not harm the lung if that were pierced. The point recommended by Dieulafoy is in the fifth interspace, about three quarters of an inch from the edge of the sternum. In fifteen out of thirty-four cases this point was chosen. The dangers to be dreaded are wounding of the internal mammary artery, and striking the heart as it is thrown forward in systole. By adopting Dieulafoy's plan the artery is avoided, as it lies from a quarter to half an inch from the edge of the sternum. Injury to the heart may be avoided by having a canula slide over or within the needle, thus guarding its sharp point. The heart may probably, however, bear a certain degree of injury with immunity, according to Eve, Steiner, and others. Baizeau and Roger tapped the ventricle without doing harm, both patients surviving the operation, though in one case one hundred and fifty and in the other two hundred and fifty grammes of blood were drawn. As for the danger of the operation in these forty-one cases, regarding one in which the final result was not given as a fatal case, the mortality was 53.66 per cent. But then the effusion in many of them was merely a single factor of disease; in fact, in seventeen there were other concomitant and often incurable affections. In five fatal cases no other disease was mentioned, which puts the mortality at 12.19 per cent., supposing it to have been from cardiac dropsy alone. Since the year 1850, of the uncomplicated fatal cases the mortality has been 21.43 per cent., which, though not so low as the figures given for all the uncomplicated cases taken together, is perhaps as low as in many other operative procedures that are regarded as perfectly justifiable. In acute rheumatic pericardial effusions the results have been excellent; where, however, the disease becomes chronic a perfect cure is almost hopeless, for, owing to the long continuance of the inflammation, the maceration of the heart, and the pressure of the distended sac, the tissues have assumed new pathological characters.—*Boston Med. Journal.*

[1] New York Medical Journal, December, 1876. New York Medical Record, January 20, 1877.

THE ADMISSION OF WOMEN TO MEDICAL DEGREES.

Dr. Tilbury Fox in a recent number of *The Lancet* says, I hope you will allow me to direct attention to the kind of examination—as shown by recent papers—which women will have to undergo, in company with young men, in order to gain admission to the medical degrees of the University of London. I ask this in the hope that many of the Arts, Laws, and Science graduates who read *The Lancet* may be enlightened upon this particular point.

On turning to the examination-papers for the last half-dozen years, I find, amongst others, the following questions, set by the examiners:—

First M.B., July 30th, 1877.—"Describe the membraneous portion of the male urethra, and the structure in *immediate* relation therewith. Mention the chief points of difference in the female subject."

M.S., 1872.—"Describe fully the character of so-called soft and hard chancre, &c."

Second M.B., 1873.—"Give an account of the modes in which syphilis becomes propagated; the details by which the poison is diffused throughout the system, &c."

First M.B., 1873.—"Describe the connexion of the lower four inches of the rectum in the male, the naked-eye character of the coats of the gut for the same distance, &c."

First M.B., 1875.—Give an account of the genito-urinary organs of the human male."

B.S., 1876.—"Describe in the order of their frequency the several growths which affect the testis, and mention the signs on which you would chiefly rely in the diagnosis of each."

Second M.B., 1875 (Honours).—"What constitutes rape. Mention the lesions which may result from rape (*a*) in the case of adults, and (*b*) in the case of children, pointing out the local affections of the genital organs which may simulate the effect of rape, &c."

Is it surprising that the great majority of the medical graduates view with "destestation" the proposal that women should be admitted to the same degrees as men; the possibility that young women and young men should be subjected to a precisely similar examination, at the same time, and in the same testing-room, upon the topics dealt with in the above quoted questions, and that they should similarly undergo the necessary anatomical and clinical training to fit them for passing such an examination; and, lastly, that women should be encouraged and actively aided to enter the list in honours, in competition with young men at the same table, and, if possible, to carry off the palm for a more intimate acquaintance and superior knowledge upon such subjects as diseases of the testicles, rape, and the like. To my mind the thing is revolting in the extreme, and I believe that when the real facts of the case are known to them, very few non-medical graduates would countenance, *in its present form*, the proposal to admit women to medical degrees in the Uuiversity.

Excision of the Superior Maxillary Bone.—M Létiévant gives details of a case of very large fibrous nasal polypus, for which he excised the upper jaw. The patient was a young adult, and the tumor protruded into the pharynx, filled up the antrum, and had caused absorption of the hard palate. The operation was one of great difficulty, the bleeding being very profuse, and the danger of asphyxia great. At one time M. Létiévant says he was doubtful if he should be able to complete his operation, "but thinking of a new instrument, the *pinces à résection* of Farabœuf, I applied it to the tumor, and making by its aid a violent effort, tore out, at length, *en bloc*, the whole morbid mass together with the osseous plates to which it was attached." The patient made a good recovery, healing taking place with the rapidity usually noticed in this operation. While the case thus detailed is in itself instructive, the chief interest of the paper lies in the modifications which the surgeon put in practice in the resection of the bone, and which he offers for the acceptance of surgeons. His aim has been,—1st, the conservation of the infra-orbital nerve; and 2nd, the preservation of three spicules of bones intended to form a sort of tripod for the support of the cheek. He accomplishes the first of these ends by cutting out a triangular portion of the bone, just over the infra-orbital canal, by means of a mallet and chisel, the rest of the canal he lays open with bone forceps, and then lifts the nerve out of its resting-place, and keeps it lying on the deep surface of the flap. The three processes of bone he obtains in the following manner:—1st. On the inner lip of the notch made in the separation of the infra-orbital nerve he cuts, by means of forceps, an osseous slip, consisting of the orbital border of the bone and its connection with the nasal process, which latter he also separates from the body of the jaw. 2nd. On the outer lip of the same notch he cuts a second osseous band, which consists of the malar portion of the orbital border and its continuation into the body of the malar bone; then he cuts the malar away from the maxilla. 3rd. The gum and mucous membrane is scraped from the vault of the palate and alveolar process on the diseased side, and with the cutting forceps or chisel a section is made commencing behind the lateral incisor tooth, running into the anterior palatine canal (taking, indeed, the line of separation of the pre-maxilla and maxilla proper); from thence it is carried directly backwards in the middle line, so as to sunder the two palate process as far as the affected border of the soft palate. M. Létiévant quotes Longet in proof of the loss of muscular power which results from section of the sensory nerves of the face, and draws the following conclusion: "It is then evident that it is not enough to save the facial nerve in order to preserve to the facial muscles their muscular irritability after the operation of resection of the superior maxilla, but that it is necessary to preserve also the infra-orbital nerve. The preservation of this moreover, while it retains the motor power, retains also the sensibility, which is a point not to be disregarded."—*Lyon Médicale*, 16th and 23rd Sept., 1877.—*Glasgow Med. Journal*

Battey's Operation.—Dr. J Marion Sims, now in Paris, writes to the *Medical Times and Gazette* an account of Battey's first case of so-called normal ovariotomy, and concludes as follows: "I would like to see this operation recognized by the profession as 'Battey's operation.' I think he is entitled to that honor. He was the first to grasp, in its widest range, the influence and effects upon the general system of what he calls an 'unrelieved menstrual molimen.' He was the first to suggest a method of cure. He was the first to carry out his own suggestion, and to perform an operation for the cure of a disease that had never been cured before. He performed the operation on his own responsibility, without the co-operative aid of a single member of the profession. He has demonstrated the correctness of the principles upon which it was based, and proved its success in practice. He has established a precedent that may now be

followed with safety, and opened up a new field of observation that promises results as grand as those now achieved by ovariotomy. He has raised sorrowing women from a perfect slough of despond, from indescribable suffering, from epileptic convulsions, from repeated pelvic inflammations, hæmatoceles and abscesses, from vicarious and alarming hemorrhages, from threatened insanity, and, in some instances, from impending and certain death, and restored them to health, to friends, to usefulness, and therefore to happiness."

"We have precedents enough for naming diseases and operations for those who have been the first to discover and describe the one, or to originate and perform the other. I may name Bright's disease. Addison's disease, Colles' fracture, the Hunterian operation, Syme's operation, Pirogoff's operation, Graefe's operation, etc. The moment they are named, we recognize each operation, and the manner of executing it in its manifest details. Let us honor Battey by calling this 'Battey's operation.'" —*Clinic.*

THE PANCREAS IN DIABETES.—M. Lancereau laid before the Académie de Médicine some specimens exhibiting extensive lesions of the pancreas in subjects of diabetes, and having related the histories of the cases whence they were derived, and referring to others already on record, went on to say that it was thus evident that, at least in some cases, diabetes is accompanied by great alterations in this organ. In these cases the progress of the disease has been relatively rapid, and has been attended by polyphagia, polydipsia, excessive emaciation, and abundant glycosuria—in fact, by all the characteristics of saccharine diabetes. So, also, animals from which the pancreas has been removed, became voracious and rapidly emaciated, and die very quickly. There would seem, therefore, to be no doubt that there is a casual relation between these changes in the pancreas and the disease in question. This form of diabetes may be distinguished by the relatively rapid occurrence of emaciation with polyphagy and polydipsia and by the peculiar character of the alvine evacuations. Its prognosis is most unfavorable; the indication for treatment consists in suppressing alimentary substances that are digested by the pancreatic juice, in favor of those which undergo digestion in the stomach.—*Gaz. des Hop.—Medical Times and Gazette.*

A LADY PRACTITIONER IN DISGUISE.—A Dr. James Barry served as surgeon in the British Army for more than fifty years, during which time he held many important medical offices, and gained an enviable reputation as a cool and skilful operator. He was of a very irritable temper, and, while stationed at the Cape of Good Hope, fought a duel. Notwithstanding frequent breaches of discipline, he attained high rank in the army, served in many parts of the world, and in 1865, his name stood at the head of the list of inspectors-general of hospitals. In July 1865, the eccentric surgeon died, and the next day it was officially reported that the doctor was a woman. No suspicion of the surgeon's sex seems to have been entertained, even by his most intimate associates. In addition to his other accomplishments, Dr. Barry was an inveterate smoker.—*New York Journal.*

ACETIC ACID IN PSORIASIS.—Dr. Jansen (*Revue Médicale*) finds acetic acid the most effectual application. After a bath of hot water and soap to soften the crusts, the scales are to be removed by a small brush. The acid is then applied by means of a sponge. Very soon the affected parts become pale, then injected, and finally slightly inflamed. There is a feeling of smarting, which lasts half an hour. The crusts fall off, and in some cases appear no more after the fifth or sixth application; in others they reproduce themselves for a longer time, gradually becoming less and less thick. Only one application in the twenty-four hours should be made, and the parts should be carefully bandaged. —*Clinic.*

OVARIOTOMY.—Prof. Donald Maclean of Ann Arbor has within the past few months performed the operation of ovariotomy six times. Several of these cases were very complicated, requiring the removal of both ovaries, etc. The result has been, five cases of complete recovery, and one death. In the latter case the tumor was of over twenty years' growth and weighed upwards of one hundred pounds. These cases show a mortality of but 16⅔ per cent., which is the best result yet obtained in the Northwest. The doctor promises a detailed report of his cases for an early number of the News. —*Michigan Med. News.*

FRAUDULENT LENSES.—*The New York Medical Record* reports that quite an excitement has been created in that city by the discovery that one of the leading opticians is in the habit of importing from Paris ordinary commercial lenses, remounting them after the English style, and palming off such inferior productions as the lenses of the best makers. The fraudulent practice has probably been carried out by American opticians for a long time.—*Clinic.*

The French have passed a law that "Every person who may be condemned by the police force twice for the crime of open drunkenness will be held incapable of voting, of elective eligibility, and of being named for the jury or any public office."

A FIBRO-CYSTIC tumor of the uterus cured by ergot is reported in the Boston Medical and Surgical Journal. The ergot was given in half-drachm doses thrice daily.

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science

Issued Promptly on the First of each Month.

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.*

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; J. M. BALDWIN, 805 Broadway, New York, and BALLIERE TINDALL & COX, 20 King William street, Strand, London, England.

TORONTO, MAR. 1, 1878.

THE LATE DR. HODDER.

It becomes our sad and painful duty to announce the death of Dr. E. M. Hodder, of Toronto, after a short illness, at the age of 67. Dr. Hodder was the son of Captain Hodder, R. N., and was born at Sandgate, Kent, England, in 1810. He was educated, when a boy, at Guernsey grammar school, and afterwards at St. Servans, France. In 1822 he entered the navy as a midshipman under his father, but left the service at the expiration of one year, and having great taste for medicine, he soon after commenced its study under the celebrated Mr. Amesbury, with whom he was articled for five years. He passed the examination of the Royal College of Surgeons, England, in 1834, and received the diploma of membership, after which he spent two years in Paris in the prosecution of his studies, and subsequently visited Edinburgh, where he remained some time. He commenced practice in London, England, where he remained two years and afterwards removed to St. Servans, France. After remaining there about a year he visited Canada, but returned in a few months to St. Servans, where he remained for three years in the practice of his profession. He now determined to try his fortunes in the new world, and came to Canada. He first settled in the Niagara district, where he remained five years, and then removed to Toronto in 1843, where he practised with great success both as a physician and surgeon, until the time of his death. Dr. Hodder was married to a daughter of Captain Tench, H. M. 87th Royal Irish Fusiliers. Besides his widow, he leaves a large family of sons and daughters to mourn his loss.

He received the degree of C. M. from King's College, Toronto, in 1845, and M.D., from Trinity College in 1853. In 1854 he was elected a Fellow of the Royal College of Surgeons, England, and in 1865 a Fellow of the Obstetrical Society of London, and was one of the honorary local secretaries of the latter society.

He was Prof. of Obstetrics in the Medical Department of Trinity College, Toronto, from 1850 until its discontinuance in 1857. Subsequently he lectured on the same branch in the Toronto School of Medicine for several years. On the revival of the Trinity College Medical Department in 1870, he was unanimously appointed Dean of the Faculty and in 1877 he was reappointed Dean of the newly incorporated Trinity Medical School. He held a position on the acting staff of the Toronto General Hospital for a period of 20 years, and was appointed on the consulting staff in 1872. He was also consulting surgeon to the Burnside Lying-in-Hospital, Children's Hospital, &c., &c.

He was a most enthusiastic yachtsman, and for many years past held the position of Commodore of the Royal Canadian Yacht Club.

Dr. Hodder was a prominent member of the Canada Medical Association and was elected President at the meeting in Halifax in 1875. He was also a member of the Medical Council of Ontario from 1872 up to the time of his death. As a surgeon he was bold yet cautious, and was very successful in all his operations. As an ovariotomist he was admittedly the most successful in Canada. He was the author of several papers on medical and surgical subjects, published from time to time in the medical Journals. He was the first to inject milk into the veins in collapse. This he did in the stage of collapse in cholera during the epidemic of 1842.

Dr. Hodder had not been in good health for several months past. He complained of more or less constant headache over the left temple, with weakness of voice, thickness of speech, and general debility. On the 15th of January he was suddenly seized while sitting at his dinner-table, with complete paralysis of speech and deglutition. There was also inability to protrude the tongue, and rigidity of the right arm. These symptoms partially disappeared in a day or two, and he was able to speak indistinctly in monosyllables, but almost invariably said "yes" for "no" and the reverse. At the end of ten or twelve days he so far recovered as to be able to move about with a little assistance. His mind was tolerably clear at times, at other times

very hazy. Though there never was any paralysis of the extremities, yet he never attempted to help himself, and appeared to have great difficulty in finding words to express his wishes. Aphasia was well marked. His progress towards recovery was never satisfactory. About a week before his death his strength began to fail and he was obliged to remain in bed. Symptoms of serous effusion set in, and he became comatose about forty-eight hours before his death. The diagnosis was white softening of the left anterior lobe of the brain. There was no *post mortem*.

His death is a loss of no ordinary value, and will leave a blank very difficult to fill, for medical men of his ripe experience and acknowledged skill are very few in number in this or any country. He was much beloved by those of his patients and friends who knew him best. Although sometimes brusque and abrupt in manner, he was yet kind at heart, and his loss will be sadly felt by many patients and friends all over the country. In his death the profession also loses one of its brightest ornaments; one whose gifts were of no ordinary character, and whose talents were almost entirely consecrated to the faithful discharge of professional duty and the well-being and advancement of the highest interests of his profession.

His funeral was largely attended by the students and members of the Faculty of both medical schools, the medical profession and the general public.

SANITARY BOARDS.

It is a matter for congratulation that the Legislature has appointed a commission to enquire into the best mode of procedure for guarding against the numerous factors of disease now existing in our cities, towns, villages, and country generally, and that to assist in this important task, they have availed themselves of the experience of a number of competent medical men. We would fain hope that the commission will not confine itself to the task of devising the best scheme for the government, in the future, of Boards of Health, but to that labor add another very important one, viz., an improvement in the means at present employed for collecting medical statistics. Averages, as Sir H. Holland observes in his "Notes and Reflections," may, in som sort, be termed "the mathematics of medical science," and the success with which it has been employed of late by many eminent observers, particularly Mr. Simon, affords assurances of the results that may hereafter be expected from this source. We must compare together, says M. Louis, (Memoires de la Societ Medicale d'Observation de Paris) "a great number of cases of the same disease of equal severity, some relating to subjects in whom the disease was left to itself, others of individuals to whom certain medicines were given. After doing this, we must study the action of the same therapeutical agent on those in whom the disease was severe, and on those in whom it was slight, or those on whom the remedy has been used in large or small doses at a period near to, or remote from the commencement of the disease. This last circumstance is very important. So, likewise, we must mention whether the medicine is used alone, or in conjunction with other remedies. But not only does this method require much labor, but it also supposes a considerable series of facts, the connection of which is difficult, especially when treating severe affections in which we are accustomed to make new attempts and which will not allow of our remaining a mere spectator of the progress of the disease. For it must be evident that we do not seek to know by approximation what remedies have *appeared* to be more or less successful, but to demonstrate in a rigorous manner, that a certain remedy, or certain method is useful or hurtful, and in different degrees, according to the manner in which we employ it." A glance at the history of medicine shows, that it has suffered more from faulty observation and false facts, than from false theories; for after all most of the theories have been based upon fancied observation. Averages and numerical methods can in no case, however, afford more than an approximation to the truth, yet the approximation is closer than can be attained in any other method. Accuracy in diagnosis is the first essential. If, as there is too good reason to suppose, in epidemics of diphtheria, ordinary cases of inflammation or ulceration, are included in the estimate of number, what value attaches to the percentage of deaths and recoveries, or to the therapeutic agent employed? Without that accuracy, what reliance is to be placed in the vaunted cures of "all the ills that flesh is heir to," by the most recent craze electric baths? History repeats itself; some sixty

years ago Miss Porter's magnetized beefsteaks were the specifics in vogue. Might not the advocates of the baths, accelerate the cure of their patients by such a diet?

There has been doubtless an immense accumulation of *quasi* facts in every department of medicine; but the most pressing want under which our science at present suffers is the due elimination of the false from the true. It is only by the statistical test that we shall finally arrive at correct conclusions. Let us hope, therefore, that the mode of collecting these statistics will be so improved on as to reduce to a minimum the errors resulting from a false diagnosis. In framing a bill for the better carrying out of sanitary laws, we trust the Government will bear in mind the indisposition that all municipal bodies display in carrying out the essential reforms in the usually existing faulty drainage, sewerage, and disposal of sewage, inasmuch as such changes involve a large expenditure; and to enable the members of Boards of Health satisfactorily to discharge their onerous and responsible duties, they should be armed with plenary powers, whenever the report of the Government engineer endorses that of the local. We consider also, that every local Board should have at least two Government nominees. In cases where the magnitude of the work requisite for sanitary purposes would be beyond the means of the ratepayers, a very slightly increased county rate would without being onerous on the inhabitants, be necessary. The local boards should insist upon the latrines being placed at least a hundred yards distant, and not in a direct line with the wells. In small towns where no water-works exist, the dry earth or Rochdale system might be tried. As a rule the police officer appointed by the board to see their ordinances properly carried out, should be instructed to report immediately any non-compliance with the laws, and the onus of enforcing them should rest on the board, and not on the officer.

KEEP THE MOUTH CLOSED.

In these times when people are becoming alive to the nature of many contagious diseases through a better acquaintance with the "germ theory," and when diseases of a preventable class are so prevalent as to be quite alarming, it is well to enquire into some of the most convenient means of prevention.

Now granting that "disease germs" are everywhere found floating in the air, even from the dust arising from the carpet on which the satin-slippered lady may be treading, a little advice about keeping the mouth closed and thus excluding them from the system, may be seasonable, and of advantage, for although we write for the professional reader, yet a gentle reminder on a subject so important may lead him to repeat the advice to his patients with the endorsation of his own authority. 'Keep your mouth shut," used to be said to us in our noisy boyhood days, when we happened to cause a little annoyance to older people with our rompings; or when we artlessly were inclined to tell all we knew, and a little more, to the newest arrival; but there is a more important sense than this in which the mouth should be kept closed.

By the evil habit of breathing through the mouth, we take in mouthfuls of unstrained air, full of dust or disease-germs, as the case may be; and in cold weather predispose ourselves to sore-throats and bronchitis by bringing into direct contact with the throat and air-passages, air full of frozen particles of moisture, which cause considerable irritation. In this way incipient lung affections are established and much trouble occasioned; common sense should suffice to teach people that the nostrils, not the mouth were evidently constructed for breathing through. These are the natural channels of ingress and egress of the air. Moreover the air-passages are provided with a natural strainer, in the form of a lining of hairs, which, in some degree at least, prevents the ingress of dust and other noxious matters, in the air we breathe. Besides, by drawing our breath through the nostrils only, the air is warmed by coming in contact with the membranes before it reaches the lungs, and in this way congestions or inflammations of these organs are avoided.

It has been confidently asserted by some, who pretend to have tested the matter, that *miasms* are prevented from entering the blood, if the breathing is performed through the nose. All the air taken into the lungs, in this way, comes in contact with the mucous membrane of the nose, and this is supposed by those who have travelled and dwelt much in malarious districts to possess some power of neutralizing malarious and contagious poisons.

They have lived in malarious districts, slept on the banks of malarious rivers for years, without contracting any of the forms of fever peculiar to such neighbourhoods, and ascribe their exemption solely to the habit of breathing through the nose.

In cities and other centres of contagion many examples of the unnatural "mouth" respiration may be seen, which is always hurtful. No perfect rest in sleep, can be obtained with the mouth open, and quiet rest is a valuable consideration; it is nature's great restorer. Mr. Catlin in his little work entitled "Shut your mouth and save your life," contrasts the natural repose of an Indian child, with the uncomfortable slumbers of an infant of civilization, with its wide open mouth and gaspings for breath." The Indian child, was never allowed to sleep with its mouth open; as it fell asleep the savage mother never failed to press its lips together, till she had fixed a habit that was to last for life; for when these children grow up, waking or sleeping they keep their mouths shut." And to this habit, he ascribes the immunity that the native race of America then enjoyed from the deplorable diseases and mortality rate among civilized people. Among two millions of these people that he had visited, he never saw or heard of a hunchback or crooked spine, an idiot or a lunatic, whilst premature death was quite uncommon. The mouth should be kept closed when in a crowded or dusty room, when among a crowd at any time, when on the street, in the field, work shop or mill —in fact at all times when possible so to do. If the habit is once acquired and put into practice, it will pay in improved health and prevention of disease. A firmly closed mouth also promotes personal beauty; open mouths cause the best features to wear an insipid and unattractive appearance.

LEGISLATIVE SANITARY COMMITTEE.

The committee recently appointed by the Ontario legislature to enquire into and report upon the sanitary condition of the Province have issued a number of questions addressed to medical men with the view of collecting as much informaiton on the subject as possible. As was to be expected some physicians who have paid attention to such matters have sent replies, but the great majority have taken no notice of them—but were rather disposed to laugh at the absurdity of some of the questions. Many of the questions were most important and should have been replied to. We have before us the replies given by Dr. Philip of Brantford, to one of the questions with its subdivisions A, B, C, from which we take a few excerpts.

A.—Drainage—nature, extent, etc. There is practically, no drainage in the city of Brantford, except private drains. In most cases, house drainage passes into large cess-pits at a distance from the houses of from ten to one hundred yards. When these are full, other pits are dug alongside of the old ones. Most of these cess-pools are in close proximity to wells, in some cases not more than five feet away. In not a few cases, especially in the older parts of the city, the back yards are saturated with *ordure*. The result of this state of things is simply pollution of the soil in proximity to dwellings, which, if persevered in must engender zymotic diseases. Of this there is clear evidence in the constantly recurring cases of virulent diphtheria, typhoid fever, *et hoc genus omne*.

B—Nature of soil and distance to bed rock. The soil on the surface is mainly sand and gravel. The city is built in a basin of the grand river valley the sides of which rise to about 100 feet all around, enclosing an area of about 1½ miles in breadth and 3 in length, the high lands draining naturally down to the river. The natural drainage is thus good, and the facility for artificial drainage, the best that could be secured. The sand and gravel vary in depth, from a slight covering in the low grounds to from 50 to 60 feet in the high; below it, lies clay, yellow and blue which has a thickness of from 50 to 150 feet, and in some places probably more, before the Onondaga lime-stone is reached.

C.—Depth of wells, quality of water, supply, ample or limited. Wells, dug from 20 to 30 feet deep, are generally abundantly supplied with water from the clay beds. That the wells and springs are supplied, in part, from the surface water, due to the precipitation of rain and snow, is very manifest. The increase of late in the number of wells is lowering the water level and diminishing the flow of the springs. This being the condition of things, the water in the wells and from the springs naturally holds, in both chemical and mechanical solu-

tion, the moveable and soluble elements of the soil through which it passes, and cannot fail to be affected by the numerous cess-pools that lie in its path. Besides the wells, there is an artificial supply of water from certain springs, forced by steam power through mains laid along the principal streets but this is so impure, that it can only be used for washing or mechanical purposes and for extinguishing fires. No conditions could thus be more favorable for generating and propagating zymotic disease." Most towns and villages by reason of their sanitary condition, (being generally such as exist in Brantford) are as much exposed to disease of the zymotic type as are the crowded parts of large cities. There is besides, such almost universal ignorance of general uncleanness, and indifference to its dangers, that little or no hope can be entertained of voluntary local improvement. To effect a change for the better, aid and compulsion must come from the Legislature.

MEDICAL CONTRACT SYSTEM.

In another column will be found a letter from Mr. Broughton, manager of the Great Western Railway Company Hamilton, in regard to the tariff of medical fees adopted by the Provident Society belonging to that Company. In inserting the letter, we do not wish to be understood as in any way endorsing his views. From our experience of the medical contract system, both here and elsewhere, either in connection with wealthy corporations or charitable societies, we have no hesitation in saying that it is most pernicious in its tendency, and highly injurious to the best interests of the medical profession. This question is rapidly looming up, and will sooner or later come before the profession for settlement. The matter is entirely a professional one, and must be dealt with chiefly by the members of the profession themselves. The profession has itself entirely to blame for the state of matters complained of. So long as medical men are ready to accept any offer which may be made them by secret orders or societies, to become "club doctors" for the sake of the notoriety it gives them, and the opportunity it affords them of a possible extension of their practice, just so long will "societies" take advantage of their impecuniosity. For our part, we quite agree with the statement of our correspondent, that we can see no difference between accepting one dollar per head from the provident society of a railway company, and accepting a similar appointment from a lodge of "Odd-fellows," "Orangemen," or "Foresters." The principle is the same in both cases, and utterly at variance with sound business principles, as well as derogatory to the dignity of the profession. We have nothing to say against charitable societies; they are very useful in their way when properly conducted, but they have no claims upon the medical profession for what is next thing to gratuitous services, any more than they have upon the legal or any other profession. Who ever heard of lawyers giving their legal services to a body of men associated together, or a society or lodge, for so much per head per annum? On the other hand, we believe the members of the society are not as well cared for, as if they were attended in the ordinary way. There is a disposition to reduce to a minimum the services rendered, under the circumstances of such low fees. It is also a well-known fact, that the societies are not able to secure the services of the ablest and most experienced physicians, for as a rule, these are too busily engaged in their private practice to undertake work of such an unremunerative and unsatisfactory character—nor will any physician, no matter how skilful he is, be acceptable to every member of the society. The result is, that many of the members, although they pay their quota towards the physician, never send for him in case of sickness or accident. There can be no objection to members of societies or lodges assisting each other in case of sickness or accident, by contributing a certain sum to pay for medical attendance, but each member should be left free to call in the physician of his choice, who should be paid his ordinary fees out of the funds so contributed. This plan, which has been adopted by several charitable societies in this city and elsewhere, is the only rational one.

NEW THERAPEUTICAL NOTES.—In the new form of in-stitch, introduced this month by the firm of McKesson & Robbins, will be noticed some therapeutical notes on new remedies prepared by them in the form of gelatine coated pills, and granules. These preparations are most elegant in appearance, easy of administration and well worthy of the careful consideration of the profession.

MEDICAL LEGISLATION.

The Executive Committee of the Ontario Medical Council has framed and introduced a Bill into the local Legislature to amend and explain the meaning of the Ontario Medical Act. It has been taken in charge by Dr. Clarke, M.P.P., for Norfolk. With the provisions of the Bill as it stands, and the clauses that are likely to pass, there can be no objection, but it does not go far enough. There should be increased territorial representation, and the medical men in the House will fail in their duty if they do not introduce an amendment to that effect. The period of membership should also be reduced from five to *three* years. The Medical Council should also have power given to it, similar to that which obtains in the Law Society, of regulating the internal discipline of the college; and of striking from the roll any who are guilty of flagrant violation of its rules and regulations. The matter of admitting to registration, without further examination, *Canadian graduates* with additional British qualifications, after an extra course of medical study, should be also provided for. We also trust that a clause will be introduced regarding the appointment of the examining board. It is a monstrous thing that the members of the Council should have power to constitute themselves the examiners, and also pay themselves $100 each, for the performance of that duty. This has done more to bring the council into disrepute than almost any other act. But for this circumstance, we never would have had those disgraceful proceedings of two years ago at the Toronto University. We trust that the members in the House will not allow the opportunity to slip, of making certain amendments which are much more necessary than those now introduced.

OVARIOTOMY.—Our subscribers will doubtless be pleased to learn that the paper on Ovariotomy, prepared for the late meeting of the Canada Medical Association by Dr. J. W. Rosebrugh, of Hamilton, will be commenced in the April number of the LANCET. As Dr. Rosebrugh is understood to have had considerable experience and very good success as an ovariotomist, his paper, we are sure, will be looked for by our readers with much interest.

MONTREAL MEDICAL LICENCE CASE.—The defendants in this unusually protracted case, contrary to the expectation of many of their friends in Montreal and elsewhere, have been committed for trial in a higher court, by the magistrate who made the preliminary investigation, and were obliged to give bail. It will be much to be regretted, if this case should be again dragged into the courts. The College of Physicians and Surgeons should have plenary power to deal with all such cases as affect its interests, without having recourse to a public tribunal. No one doubts that Drs. Worthington and Fenwick were guilty of a very "grave irregularity," but they have been punished already fully equal to the sum of their offence. Let there be a complete acknowledgment of their error, and an ample apology in writing to the President of the College and any others who have been affected, and let the matter be dropped for ever.

MEETING OF THE ONTARIO MEDICAL COUNCIL.—It would be very desirable if the meeting of the Ontario Medical Council could be called early in June this year. There are several members of the council and others who take an interest in the proceedings, who intend to go to the Paris exhibition during the summer months, when practice is usually quiet. An early meeting would therefore be a great accommodation to such persons, and in no way injurious to the interests of the council.

ALCOHOL IN THE TREATMENT OF HYDROCELE.—A favourite plan for the treatment of hydrocele by many eminent surgeons of the day, is to inject —by means of a hypodermic syringe—from a few drops to one fluid drachm of alcohol (Spts. Vin. Rect.) into the sac. The heat of the scrotum is increased, temporarily, but the process of coagulation of the albumen of the fluid at once takes place, and a complete cure speedily follows.

TELEPHONIC AUSCULTATION.—The latest novelty in medical practice is telephonic auscultation. In a British exchange the writer says: "he listened to a young lady's chest with a telephone; she stood in the hall and he was thirty feet away in the dining-room. He heard the healthy sounds of a very healthy chest quite distinctly." This plan would be suitable for very modest young ladies and will no doubt become popular with a certain class.

BULLOCK AND CRENSHAW'S SUGAR-COATED PILLS.—We desire to call the attention of the medical profession in Canada to the sugar-coated pills and granules manufactured by Messrs. Bullock & Crenshaw, of Philadelphia. After a most critical examination by medical men of skill and ability they were awarded a Centennial medal for superiority of finish and purity of ingredients. Messrs. B. & C. have long since established their reputation for the purity and excellence of their pharmaceutical preparations, and we have no hesitation therefore in giving their preparations our unqualified endorsation. The price of their pills has been reduced to suit the times, but at the same time they guarantee that their reputation for excellence shall be scrupulously maintained.

NEW METHOD OF REDUCING DISLOCATION OF THE HIP.—Dr. Allen of Vermont (*Journal of Materia Medica*) describes a new and simple method of reducing dislocation of the hip-joint. After the administration of chloroform the leg is flexed upon the thigh, and the thigh at right angles to the body. The surgeon then steps upon the bed, places the leg of the patient between his legs with the dorsum of the foot against the nates; he then grasps the leg at the bend of the knee, lifts the hips from the bed, and holds the patient in that position for a few seconds when the head of the dislocated bone slips into its socket. The principle, viz., vertical extension, is not new, but the mode of putting into practice is certainly original.

THE DISCOVERER OF FŒTAL AUSCULTATION.—The discoverer of fœtal auscultation, the Count de Kergaradec, died lately in Paris at an advanced age. He was the first to apply auscultation for the detection of the fœtal heart sound. His son in announcing his death to the French Academy said: "among his children who stood around his death-bed was that beloved daughter, the beating of whose heart her father heard while she was still in her mother's womb."

POST CARD "SPECIMEN COPY" MEN.—In accordance with a suggestion of the American Medical press we publish the names of the following members of this *genus*. Frank J. Godfrey, M.D., Bennington Vt.; C. Seymour, M.D., Northampton Mass. Pass them around.

SALICYLIC ACID IN DIPHTHERIA.—Dr. Letzerich has made a number of experiments in regard to the action of salicylic acid upon the organisms found in diphtheritic deposits, the result showing that this acid possesses the power of killing the germs in question. He has also used salicylic acid in seven cases of the disease, five of which were mild, and two severe. In the former cases a gargle according to the following formula was employed:

℞—Acidi Salicylici,	grs. xv.
Solve in Spts. Vin. Rect.	m. xxx.
Aquæ Déstillat., ad	℥ viij.—M.

Under the frequent use of this gargle the diphtheritic membrane disappeared from the throat entirely in from two to four days. In the severer cases the treatment was both internal and external. Four and a half grains of the powder with an equal quantity of sugar were administered every two hours, and the throat was swabbed with a solution of the acid in alcohol and water (five parts acid, one part alcohol, and fifty parts water). In addition the throat was occasionally touched with a damp camel's hair pencil dipped in the powdered acid. The results were so favourable that Dr. L. urges its further trial. The addition of carbolic acid has been tried with success in this country, the following formula being employed:

℞—Acidi Salicylici,	grs. xx.
Acidi Carbolici,	grs. xxx.
Sodæ Bibor.,	℥ j.
Glycerinæ,	℥ j.—M.

SIG.—Apply to the fauces by means of a camel's hair brush every three hours.

HYPODERMIC INJECTION OF ARSENIC IN ASTHMA.—Dr. Martelli in the *Gaz. Med. Ital.* reports a case of nervous asthma of long standing which was perfectly cured by subcutaneous administration of arsenic. He used Fowler's solution diluted with two parts of water, and injected of this from 2-3 grammes; no unpleasant results either local or constitutional followed its use.

SUBSCRIBERS IN THE MARITIME PROVINCES.—Our many subscribers in the Maritime Provinces would confer a favor by remitting in *Dominion of Canada Bills*. There is a discount here on all local bank bills, other than those of Ontario and Quebec.

RESIGNATION.—Drs. DeWolf and Fraser of the Hospital for Insane, Halifax, N. S., have resigned the offices of medical superintendent and assistant medical superintendent respectively. Troubles of a religio-political nature are the reasons assigned.

G. T. McKeough, M B. Trinity Medical School has passed the primary examination of the Royal College of Surgeons England. Also D. H. Dowsley, M.D., Kingston, Ontario.

The death of Claude Bernard, the discoverer among other things of the glycogenic function of the liver is announced. He was 65 years of age.

The death of Dr. E. R. Peaslee of New York was announced on the 21st of January.

APPOINTMENTS.—Dr. A. P. Reid has been appointed medical superintendent, and Dr. Geo. L. Sinclair assistant medical superintendent of the Hospital for the Insane, Halifax, N. S. They are both members of the Faculty of the Halifax Medical College.

R. J. Mattice, M.D. of Moulinette, to be an Associate Coroner for the united Cos. of Stormont, Dundas and Glengarry.

N. Brewster, M.D., of Ridgeway, to be an Associate Coroner, for the Co. of Welland.

H. N. Elliott, Esq., of Manitowaning, to be an Associate Coroner, for the District of Algoma.

J. A Sinclair, M.D., of Hastings, to be an associate coroner for the Counties of Northumberland, Durham and Peterborough.

J. R. Anderson, M.D., of Ailsa Craig, to be an associate coroner for the County of Middlesex.

P. L. Graham, M.D., of Bothwell, to be an Associate Coroner for the County of Kent.

Reports of Societies.

WESTERN AND ST. CLAIR MEDICAL ASSOCIATION.

The annual meeting of this Association was held at Chatham in January last. The members present were as follows:—Drs. Bucke, Fraser, Beemer, Mitchell, Samson, Van Velsor, Tye, Smith, Graham, Rutherford, Lumley, Bray, Holmes, Murphy, Richardson, Bright, Fleming, Van Allan, Sivewright, Abbott, Winter, Professor McGraw, of Detroit, and Dr. Tates, of Washington.

The minutes of the last meeting, held at Sarnia, were read and adopted. Several communications were read—one from the Secretary of Brant County Medical Association, relative to contract practice; also letters of regret from Drs. Brodie, J. M. Fraser and Edwards.

It was moved and seconded that Drs. Bucke, Fraser and McLean constitute the Printing Committee for the year ensuing, and that they be empowered to exercise their option with respect to the publication of papers in the forthcoming transactions; *carried.*

On motion it was decided to hold the meetings semi-annually in future, at Detroit in June and London in January.

The following officers were elected for the ensuing year;—Dr. Tye, President; Dr. McAlpine, Vice-President for Middlesex; Dr. Lougheed, Vice-President for Lambton; Dr. Lambert, Vice-President for Essex; Dr. Samson, Vice-President for Kent; Dr. Fraser, Treasurer; Dr. Beemer, Secretary; Drs. Bucke and Richardson, Auditors.

Dr. Fleming read a carefully prepared paper on the "Causation and Pathology of Typhoid Fever."

A long and spirited discussion followed upon this subject, which was very ably dealt with by a number of gentlemen present, among others by Prof. McGraw, of Detroit. The conclusions arrived at were that typhoid fever may be, though rarely is, communicated from the patient to a healthy person, or may result from imbibition of impure water or by inhalation of poisonous atmosphere. A vote of thanks was tendered Dr. Fleming for the paper.

Dr. Bucke, Superintendent of the London Asylum for Insane then read an elaborate and wholly original essay on "The Moral Nature and the Great Sympathetic" for which he received the thanks of the association. Prof. McGraw was elected an honorary member of the association. Papers were promised for the next meeting by Drs. McGraw, Holmes, Lumley, and Rutherford. The meeting then adjourned, after which the members enjoyed the hospitality of the Chatham Medical Association at the Garner house.

FAMINE, of a terrible character, prevails in several of the northern provinces of China; immense districts are almost depopulated. The same state of affairs obtains in several large districts of British India.

Books and Pamphlets.

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE.—Edited by Dr. H. VON ZIEMSSEN. Vol. XIV. Diseases of the Nervous System and Disturbances of Speech. New York: Wm. Wood & Co. Toronto: Willing & Williamson.

We have received from the publisher the 14th volume of this extensive work. Professor Eulenburgh of the University of Greifswald, deals exhaustively with the subject of Vaso-Motor and Trophic neuroses including Hemicrania, Angina Pectoris, Unilateral Progressive Atrophy of the Face; Basedow's disease—characterized by palpitation with accelerated pulse, swelling of the Thyroid gland and exophthalmus; Progressive Muscular Atrophy; Pseudo-Hypertrophy of the Muscles—evidenced by an abnormal increase of size in certain muscles, accompanied by a diminution or loss of their functional energy, the direct cause of which is chronic disturbance of the nutrition of such muscles; and True Muscular Hypertrophy. The subjects Epilepsy and Eclampsia are treated of by Professor Nothnagel. He considers that the designation eclampsia should be made use of for those cases of epileptiform spasms which independently of positive organic disease, present themselves as an independent and acute malady, and in which so far as our present knowledge allows us to judge, the same processes arise generally in the way of reflex excitement, and the same mechanism in the establishment of the paroxysms, comes into play, as in the epileptic seizure itself. Hughlings Jackson considers that the great tendency of the nervous system in childhood to react upon peripheral sensory excitement, is due to the fact that the nervous system of children is in the first place still undeveloped, and in the second is undergoing development. The treatise on Tetanus is written by Professor Bauer. He considers it inadmissible to consider tetanus as an inflammation, of the spinal cord, as was formerly done. The anatomical changes of the cord do not support such a view, as they are also too inconstant. Neither can the existence of a degenerative process, with proliferation of connective tissue in the sense indicated by Rokitansky be proved. This anatomical explanation appeared from the beginning to be insufficient to account for the symptoms, since the anatomical changes correspond to no single form of disease, but the same changes are found in connection with very different diseased conditions. In certain stages, tetanus may be confounded with cerebro-spinal meningitis, even with tubercular basilar meningitis, and both give rise to stiffness of the neck. But in the two latter there is rarely trismus, and the accompanying symptoms of both would prevent any prolonged mistake.

Catalepsy is treated of by Professor Eulenberg. The etiology of uncomplicated, idiopathic catalepsy is almost entirely unknown. Eulenberg assumes that catalepsy belongs to the large class of diseased conditions designated by Greisinger constitutional neuropathies, whereby its near connection with other neuroses of this group, hysteria, insanity, epilepsy, and chorea is indicated and also that a predisposition dependent upon congenital preformation of certain portions of the central nervous system generally precedes the appearance of the cataleptic attack. Professor Eulenberg treats also in this volume of tremor, paralysis agitans, and of an affection somewhat resembling paralysis agitans that he designates *Athetosis*. This affection was first described by Hammond in 1871 as a combination of symptoms somewhat resembling paralysis agitans, the chief characteristic of which is a ceaseless motion of the fingers and toes, which does not permit them to remain in any position in which they are placed. Hammond supposes the seat of the affection is in the intercranial ganglia or upper portion of the spinal cord. Chorea, is taken by Professor Von Ziemssen. The dance of St. Vitus made its first appearance as a wide spread mental disorder in the second half of the fourteenth century in the neighbourhood of the Rhine. Under the magistrates' orders those affected were led in troops to the chapel of St. Vitus, that they might be quieted by processions, masses, &c., &c. Subsequently the name chorea St. Viti was extended to the sporadic cases of spasmodic movements of the body. To Sydenham is due the conception of chorea as now entertained, and the separation of it from the foreign element, the term then being applied, of the chorea minor sive Anglorum in contradistinction to the chorea major sive Germanorum. Von Zeimssen considers that the group of symptoms called chorea major is not a disease *sui generis* but is only the product of genuine psychosis and cerebral maladies on the one hand, and of hysteria and wilful simulation on the

other. The other subjects treated of in this volume are Hysteria by Prof. Jolly, and Disturbances of Speech by Prof. Kussmaul. The latter is a most recondite and learned disquisition.

THE SCIENCE AND ART OF SURGERY. By John Eric Erichsen, F.R.S; F.R.C.S., Eng., Prof. of Surgery & Clin. Surgery, University College. Seventh edition improved, enlarged and illustrated with 862 wood engravings. Two volumes. Philadelphia: H. C. Lea. Toronto: Willing & Williamson.

This work is so long and favourably known to the profession, that nothing more is necessary than the simple announcement that a new volume of this standard work on surgery has been issued from the press. It cannot be spoken of too highly, both as a text-book for medical students, and a work of reference for the practical surgeon. We have often had occasion to consult this classical work and never have been disappointed either in the matter of advice or suggestion which it contains. It should be in the hands of every medical practitioner.

A TREATISE ON PRACTICAL AND ANALYTICAL CHEMISTRY, by F. Clowes, D.S.C., London. Illustrated. Second London edition. Philadelphia: H. C. Lea. Toronto: Hart & Rawlingson.

This work is intended to furnish a course of instruction on practical chemistry in public and other schools. Its object is to give all necessary directions, so fully and simply, as to render almost unnecessary the services of a teacher. The description of the different apparatus and how to use them, is given in the fullest manner, and yet the size of the work is kept within very moderate limits.

SCRIBNER'S MONTHLY, FOR 1878:

We invite the attention of the *Canadian* public to *Scribner's Monthly*, which has a large circulation in England, and now, at the beginning of its eighth year, deservedly ranks among the best illustrated periodicals of the world. During the past year several papers have appeared in *Scribner's Monthly* devoted wholly or in part to Canada. During the year 1878, there will appear beautifully illustrated articles on Caribou-Hunting, Moose-Hunting, Seal-Fishing, The Thousand Islands, etc., etc., besides a charming paper by John Burroughs, entitled, "Following the Halcyon to Canada." CANADA LANCET and Scribner's, $5.00 in advance.

THE POPULAR SCIENCE MONTHLY AND ITS SUPPLEMENT FOR FEBRUARY, 1878.

These favorite journals have come to hand, and as usual are full of valuable information. Among the numerous articles this month we would call especial attention to "The Evolution Theory and its relation to the Philosophy of Nature," by Prof. Haeckel, and "The Liberty of Science in the Modern State," by Prof. Rudolf Virchow. Dr. Pettenkofer has also an excellent paper on "The Hygienic Influence of Plants."

SYCOSIS—prize essay for 1877 of the Bellevue Hospital Medical College Alumni Association, by A. R. Robinson, M. B., L. R. C. P. AND S., Edin., New York. New York: D. Appleton & Co.

CLINICAL REPORT ON 3873 EYE PATIENTS, treated at the New York Ophthalmic and Aural Institute, during the year 1876. By Dr. Ad. Alt, M. C. P. & S. O., Toronto; (late resident assistant Surgeon to the above Institute.)

ON THE DRESSING OF STUMPS.—Old method—Lister's antiseptic plan—the Bordeaux treatment of stumps, Burow's plan modified by the author—comparative statistics, by Louis Bauer, M.D., M. R. C. S., Eng., St. Louis.

WHAT ANÆSTHETIC SHALL WE USE?—by Prof. Julian J. Chisholm, M. D., Baltimore.

EXCISION OF THE LOWER END OF THR RECTUM, IN CASES OF CANCER—by John B. Roberts, M. D., Philadelphia: Sherman & Co.

RETARDED DILATATION OF THE OS UTERI IN LABOR—by Albert H. Smith. M. D. Philadelphia.

A DOCTOR'S COUNTER-IRRITANT.—The prescribing druggist.—*Punch.*

Births, Marriages, Deaths.

On the 9th Feb. at Orono, the wife of Dr. RUTHERFORD, of a daughter.

In Toronto, on the 20th ult. Dr. E. M. HODDER, aged 67 years.

In Montreal on the 29th of January, Dr. R. S. MACDONNELL, from injuries received while attending the funeral of the late Dr. Peltier.

* *The charge for notice of Births, Marriages and Deaths, is fifty cents, which should be forwarded in postage stamps, with the communication.*

THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

VOL. X. TORONTO, APRIL 1ST, 1878. No. 8.

Original Communications.

REMARKS ON OVARIOTOMY.

WITH AN APPENDIX.

CONTAINING THE HISTORY OF SEVERAL TYPICAL CASES MET WITH IN PRACTICE.*

BY J. W. ROSEBRUGH, M.D.,

PRESIDENT OF THE MEDICAL FACULTY OF THE HAMILTON CITY HOSPITAL; LATE PRESIDENT OF THE HAMILTON MEDICAL AND SURGICAL SOCIETY &c.

The operation entitled *ovariotomy*, first suggested by William Hunter, first taught by John Bell, and first performed by Ephraim McDowell, has speedily come to be recognized as a legitimate and established procedure for the radical cure of ovarian disease; and, indeed, offers a more favorable prognosis than most other capital surgical operations. Never has any medical procedure risen more rapidly into favor, nor gained a stronger hold upon the professional mind, nor been more frequently resorted to by eminent practitioners throughout the civilised world, than has ovariotomy during the past quarter of a century. Seeing, that to the investigation of the etiology and pathology of ovarian disease have recently been brought the best thought and experience of the age, and that ovariotomy has in so short a period accomplished so grand a career, rescuing many valuable lives from a premature death, this operation is justly entitled to be regarded as the monarch of gynecology.

Considering the growing frequency of the operation in the Dominion, it is desirable that the profession should discuss the different methods now practiced, with the view to arrive, if possible, at some definite conclusions as to the best means of completing the several steps thereof. In this, as in every new development of science, the advance is not uncontested. There are to be found those who, with equal honesty and tenacity, hold opposing convictions. Ovariotomy has not won its final triumph, though destined so to do; its progress has been a succession of brilliant victories, and ere long, we may hope to see it coming out of the strife, its last opposition overcome, and having accorded to it a place chief among capital operations;

"Like some tall cliff, whose awful form
Swells from the vale, and midway leaves the storm,
Though round its base the threatening clouds be spread,
Eternal sunshine settles on its head."

When about to perform this operation for the first time, being anxious to find some definite rules for guidance at certain points, great was the sense of disappointment upon finding that the acknowledged authorities did not supply the information required by a beginner. To remedy this defect, I was obliged to consult the record of cases published by different operators, in the several medical journals, and decide upon the plan to be adopted under certain circumstances. Recently, however, abundance of information on the several unsettled questions has been supplied. Though we have neither the literature, the tradition, nor the sobered reason of centuries to guide us in this, as in the better known capital operations, fortunately some of the greatest modern lights have sufficiently explored this hitherto unknown realm, with such brilliant results as startle the world, while supplying data, that to the reflecting mind will furnish rules for guidance in further operations —rules that may, as in all practice, from time to time, be amended, as new discoveries are made.

Though ovariotomy is of only recent date, there have been attracted to its investigation numbers of men eminent in the profession—the peers of the men of the past—who have pursued their researches from widely differing points of observation, and with so impressive results, that already from the mass of testimony thus supplied, we may glean such important facts as will enable us to reach conclusions, which, we venture to predict, experience will but confirm. True, some of the most experienced authorities have expressed the opinion that we are only on the threshold of knowledge respecting the etiology, pathology, and treatment of ovarian disease, and in their modesty refrain from making any deductions. The wisdom of such

*Read by title at the meeting of the Canada Medical Association held in Montreal, 12th and 13th Sept., 1877.

a course is open to question. On the other hand, is it not their privilege, aye, and duty, to classify and utilize the knowledge already gained? Many things may be true which are comparatively valueless. To know the facts is important, but a further effort and patience in the pursuit of truth are required to ascertain which are the most valuable. The line must be drawn somewhere. Probably were we to attempt, at present, to distinguish between the different methods practiced in ovariotomy, no two investigators would be found agreeing in every particular. This supposition justifies the expectation now indulged, that the subject chosen for discussion this morning will prove interesting and profitable to all present.

The discussion of ovarian disease—its diagnosis and various methods of treatment, is not designed in this paper; but the diagnosis having been made, and ovariotomy decided upon, it is proposed to ascertain which are the most successful, and consequently the most useful methods of accomplishing the various steps of the operation. The plan proposed is to give a *resumè* of what the writer believes to be the best methods now practiced, and to assist in eliminating a mass of rubbish, which at present encumbers the literature of this procedure. A desire for brevity, and the intention to avoid, *en passant*, a discussion of those points which may be more advantageously considered at the close of the paper, must excuse the peremptory manner in which the writer's views are occasionally expressed.

PREPARATIONS FOR THE OPERATION.

The operation should be undertaken only by that surgeon who realizes the full weight of the responsibility he assumes, and determines to be thoroughly prepared for every step of the procedure, as well as any emergency that is liable to occur; for, unquestionably, success greatly depends upon the preparations previously made, the care and skill exercised during each stage of the operation, and particularly the vigilant supervision given to the minutiæ of the after-treatment. When possible, choice should be made of a pleasant and healthy locality, and of a large and cheerful room, capable of being heated and ventilated. The room should be thoroughly cleansed, the ceiling whitened, the walls calcimined or newly papered, and the wood-work and floor well washed, using plenty of soap and water. The carpet and furniture should be new, and the bedding clean. It will be found convenient to have two beds, as nearly alike as possible, in the room, so that the patient may be easily lifted from the one to the other. The patient having, after a full and candid explanation to her of the possibilities of the operation, voluntarily decided to avail herself of this prospect of a radical cure, this question ought to be regarded as settled; and from that hour all discussion on that point entirely avoided, while every means should be employed to inspire her with hope and courage. In the absence of urgent symptoms, time should be taken to improve her physical condition, and elevate her vital powers. She should be kept free from excitement, her food nutritious and easily digestible, the bowels regular, and the kidneys secreting a proper quantity of normal urine. A few days preceding the operation, she should occupy her lying-in room, and be treated as an invalid. The evening before, or the morning of the operation, the bowels should be thoroughly evacuated by a sufficient dose of castor oil, after which, on account of the liability to sickness from the anæsthetic, no solid food should be allowed. A kind, intelligent, and experienced nurse should be secured—one who will faithfully and tenderly attend the patient, and maintain a firm yet gentle discipline over the room. It is obviously impracticable to decide, with absolute certainty, upon a fine day for the operation, as has been recommended, with the wind in a certain quarter. The choice has to be made some days previously, and no ordinary weather-prophet can calculate with much certainty the state of the weather two or three days hence. The patient prepared, the nurse and assistant on hand, and everything being in readiness, it would be exceedingly inconvenient to postpone the operation on account of a rainy day, or an east wind. The operator should have a written list of all the instruments and utensils usually needed, including those rarely required in any emergency, this list should be checked, and the instruments properly arranged on the table, convenient to his hand.

One hour previous to the operation, the patient should receive thirty drops of laudanum, and immediately before the anæsthetic, a little brandy and water. The anæsthetic administered, the assistants enter the room, the temperature of which should be maintained at about 80°, and all

liability to drafts from the opening of doors and windows prevented. The patient is then lifted from the bed and placed upon a narrow table, made comfortable with folded blankets and sheets, in front of a large window, transmitting an abundance of light. Her feet and legs should be kept warm by means of woollen stockings, flannel drawers, and a light blanket. The feet rest upon a stool or chair at the foot of the table. It is necessary to have five or six skillful, cool-headed assistants, free from all taint or suspicion of contamination, arising from dissections, *post mortems*, suppurations, or contagious diseases. The nurse must have in readiness, in the room, plenty of hot and cold water, carbolized water, (1 to 100) a tub, several pails, wash bowls, soap, towels, soft flannels and cotton cloths, napkins, &c. She should have three pairs of new sponges, readily distinguishable from each other: one pair for the external wound; the second, a large pair, for the contents of the tumor; and the third pair, extra soft and fine, for cleansing the peritoneum. Care must be taken to keep each pair in separate dishes, and the assistant who sponges the contents of the tumor must be careful not to touch the sponges reserved for the peritoneum.

The operator takes his place on the right of the patient, with his chief assistant directly opposite. The one in charge of the instruments should be familiar with his duties, and ready to anticipate the wants of the operator. The assistant in charge of the anæsthetic should be accustomed to its administration, and one who could be relied upon to faithfully discharge his duties regardless of the progress of the operation. The anæsthetic should be given in such quantity only as is necessary to maintain quietude. This is important, owing to the tendency to prolonged sickness and vomiting after ovariotomy. When chloroform, which I prefer, is used, it is astonishing how little is required to keep up complete anæsthesia, especially when sprinkled "guttatim" upon one thickness of a napkin covering the nose and mouth, held closely around the chin to prevent the loss of vapor, while the air is freely admitted from above on either side of the nose.*

*Perhaps the most systematic method of administering chloroform, is that adopted by Dr. A. M. Rosebrugh, of Toronto, in his Ophthalmic practice.—See CANADA LANCET, vol. 5, page 622.

All things being in readiness, the bladder should be evacuated with a catheter by an assistant, before commencing the operation.

THE ABDOMINAL INCISION.

The abdominal section is now always made in the median line, between the umbilicus and symphysis pubis, the length required depending somewhat upon the nature of the contents of the tumor. Even for explorative purposes the incision should be about five inches long, which will usually be found sufficient to allow of the extraction of the tumor after its size has been reduced, but if not, the incision can afterwards be lengthened. The section is made with a strong scalpel, commencing below the navel, at a point which will make a proper length of wound ending an inch above the pubic symphysis. Care must be taken to make the dissection along the median line, through the skin, areolar and adipose tissue, down to the *linea alba*. When this *tendinous line* has been reached, and uncovered throughout the extent of the external wound, it is picked up by a tenaculum, opened, a groved director passed underneath, and carefully avoiding the sheath of the rectus muscle on either side, the aponeurosis is divided along the linea alba, from end to end. One more structure—the fascia transversalis with some adipose tissue, having been opened in a similar manner, the peritoneum is exposed. A little time should now be taken to sponge the wound and arrest the hemorrhage. The peritoneum is then raised by the tenaculum, snipped, and divided upon the director. A small quantity of straw-colored serum now usually escapes from the lower end of the wound, and occasionally, if not prevented by an assistant controlling the upper end, a loop of intestine will protrude. The peritoneal cavity having been thus opened, the tumor is brought into view, and in most cases presents the bluish-white, glistening aspect characteristic of an ovarian tumor, but in some instances, especially compound cysts, the appearance is darker, redder and more vascular. In other cases a loop of intestine may first present itself; the great omentum readily recognizable by its characteristic adispose appearance, may, like an apron, extend over the tumor; or a very vascular membrane may cover it, which on investigation proves to be hypertrophied projections of the pedicle, containing large blood vessels.

Some of these unexpected complications are very embarrassing to some operators, in the excitement of the hour, but a cool, quiet investigation will soon serve to clear up the perplexity, and the experienced surgeon will prove himself equal to the emergency.

ADHESIONS.

The tumor having been exposed to view, search is made for adhesions. The hand is washed, plunged into warm carbolized water, and two or three fingers are passed around between the tumor and the abdominal parietes. If slight adhesions are met with, they are gently broken down with the fingers. I have found the large curved steel sound, recommended by Professor Thomas, an excellent instrument for a more extended search for adhesions. It is warmed, dipped in the disinfectant, and passed gently around the tumor as far as the pedicle. With the aid of this harmless instrument the operator can satisfactorily assure himself of the presence or absence of adhesions around every part of the tumor excepting posteriorly. The most serious adhesions met with, are strong attachments to the bladder, uterus, omentum, and intestines. These bands must not be cut, unless first secured by a silk ligature; and this, I believe to be a good and safe method. But it is usual to enucleate them from the tumor by the fingers or the handle of the knife. Another excellent method of separating strong adhesions, is by making use of the temporary clamp and actual cautery. When, however, the cyst is firmly adherent to the bladder, intestine, or uterus, a small portion of the cyst wall should be cut out and left adherent to the viscus, the secreting membrane being dissected away. In such cases great care must be exercised to avoid perforating the intestine, or rupturing the fragile wall of the cyst.

TAPPING THE CYST.

The operator having confirmed his diagnosis, and ascertained that the removal of the tumor is possible, proceeds to diminish its size by removing the fluid contents. The cyst is seized at the upper end of the abdominal incision by strong, toothed, or deeply grooved forceps, and steadied, while the large trocar is plunged into it. An excellent instrument for this purpose is the trocar, known as Spencer Wells'. It is an ingenious contrivance, self-retaining, and has a flexible tube attached, through which the fluid is conveyed into the receptacle below the table. When one of these trocars cannot be obtained in a country town, a large tube, sloped and pointed at one end, may be improvised for the occasion, an opening being made for it by a scalpel. In such an event, and indeed in all cases where there is danger of the contents escaping into the peritoneal cavity, it is best to turn the patient on her left side, while the fluid is flowing away, and every precaution must be taken with sponges and flannels to prevent the contents getting into the peritoneum. In the mean time, the assistant is keeping the cyst well into the wound, by steady traction with the forceps, while another compresses the abdominal walls against the tumor by one hand on each side of the incision. In compound tumors after the parent cyst has been evacuated, others come into view, and are, one after another tapped and emptied. The contents of some cysts are very gelatinous and tenacious, passing out through even a large tube very tardily. Under such circumstances, the patient being on her side, I have expedited their evacuation by laying them open freely with a scalpel. In other cases, the contents are semi-solid, or composed mostly of small cysts—honey-combed, which have to be incised, broken down with the hand inside, and scooped away before the cyst can be sufficiently reduced to be extracted through a fair sized opening.

REMOVAL OF THE TUMOR.

As the cyst is being emptied of its contents, the assistant, by continued traction with the forceps, gradually withdraws the lessened tumor through the incision, assisted, in most cases, by the hands of the operator. Care is now taken to have the tumor well supported by the assistants, to prevent its falling, or dragging injuriously upon the pedicle. When the length of the pedicle will permit, it is good practice to tie it tightly with whip-cord, near the tumor, make a loop with the cord, with which to manipulate the pedicle, and cut away the tumor. This may be now entrusted to a skillful and experienced assistant, who will attend to any unruptured adhesions, according to the methods previously described, while the operator gives his attention to the pedicle.

SECURING THE PEDICLE.

We come now to the most important step of the operation—the treatment of the pedicle. The

most effectual methods of securing the pedicle is certainly the most important, and the most anxious question the operator has to consider. He is impressed with the recollection that in his management of this step of the operation, he is required not only to effectually and permanently secure the stump against hemorrhage, but this must be done so delicately as not to drag or twist the uterus, nor inflict the slightest injury upon the parts which are to remain within the peritoneal cavity, so that there shall be no tissue likely to decompose or give rise to septic absorption; for it is obvious, the success of the operation in no small measure depends upon how these objects are accomplished—what risk is run of hemorrhage, shock, peritonitis, and septicæmia—the four great sources of mortality after ovariotomy. It is, therefore, not surprising that this question has been anxiously discussed among ovariotomists, and various methods of procedure warmly advocated.

The various methods practiced and recommended by their advocates, may be classified thus:

1. *The Extra Peritoneal,*
2. *The Intra Peritoneal.*

Extra-peritoneal.—("without" the peritoneum). Under this division may be included the various modes of securing the pedicle outside of the peritoneum. This object is generally accomplished by either bringing the pedicle through the lower part of the incision, and fixing it outside with a clamp before dividing it, or first ligaturing the pedicle with silk, catgut, wire, or some other agent, and then either transfixing it outside, or with the abdominal parietes while closing the wound. The various plans resorted to for this purpose, have the same object in view—to keep the stump of the pedicle securely in, or outside of the abdominal wound so that it cannot drop into the peritoneal cavity, and there become the source of mischief. For the sake of brevity, I shall include all methods having the above objects in view, under the designation of *the clamp method*, as I believe the fixation of the pedicle externally can best be accomplished by a good, strong clamp—such as used by Mr. Spencer Wells. It should be borne in mind that some pedicles are very large and vascular, two or three inches in breadth, and containing the following structures: the broad ligament, the Fallopian tube, the ovarian ligament, sometimes the round ligament, several very large arteries, and a number of greatly developed veins; and all this mass must be firmly and effectually secured, if possible, against the perils already mentioned.

The *clamp method* consists in embracing the whole pedicle, outside the abdominal wound, with a strong metallic constricting instrument, capable of being screwed together very tightly, and cutting away the tumor about half-an-inch outside of the clamp. The abdominal wound is then neatly closed around the pedicle, under the clamp, and the stump thus firmly held, is so treated as to prevent any septic matter from finding its way into the peritoneal cavity.

This, it is claimed, possesses advantages over the intra-peritoneal method, where the stump of that large vascular mass, whether severed by the actual cautery, "tied and dropped," or treated by any other plan, remains within the peritoneal cavity, where it is liable to become the source of septic decomposition, and hazard the patient's life.

The clamp method has been, and still is, the one most generally practiced; it was introduced by Mr. Jonathan Hutchinson, and is nearly always employed by Mr. Spencer Wells—that prince of ovariotomists, who himself has performed the operation nearly one thousand times, thus adding, according to the calculation of Lord Selborne, 20,000 years to the lives of European women.

Intra-peritoneal.—("within" the peritoneum). Under this shall be included all modes which leave the stump of the pedicle within the peritoneal cavity: the actual cautery, the galvano-cautery, the *écraséur* acupressure, deligation by various ligatures, torsion, and enucleation.

Several members of this association, in attendance at the International Medical Congress, in Philadelphia, had the pleasure of hearing Dr. Miner, of Buffalo, describe in plain, lucid language, his plan of performing "ovariotomy by enucleation," and were deeply impressed with the conviction that his procedure is a capital method, in some cases at least, especially where the pedicle is so broad and short that it is impossible to apply a clamp, and hazardous to attempt to secure it by ligature, or divide it by the actual cautery. In a recent operation, where the pedicle was of this description, I availed myself of the method of enucleation, to separate the pedicle several inches from the tumor, in order to get sufficient length to

OVARIOTOMY BY ENUCLEATION.

allow of securing it with a double ligature. This happy thought enabled me to complete the operation satisfactorily, and the result was successful.* I therefore feel indebted to Dr. Miner, for giving his valuable discovery to the profession.

Dr. Miner's remarks were reported in the Transactions of the International Medical Congress, and may be abbreviated as follows:

"It is well known that the ovarian tumor is surrounded by a peritoneal covering; that the pedicle, proper, usually divides into three or four parts, passing up over the walls of the tumor in bands of variable width, which contain vessels, often of large size, and which gradually diminish in thickness and in the size of the contained vessels, until finally they are lost in simple, thickened portions of peritoneal covering. The peritoneal investment is not closely attached to the cyst, but separates readily, just as the peritoneum separates elsewhere in the pelvic cavity, being immediately lined by the subserous cellular tissue; thus no vessels of any considerable size enter the cyst. The tumor separates from its attachments with remarkable readiness, so much so that, in several instances, it is reported to have escaped the grasp of the operator, and fallen spontaneously from the pedicle by accident, thus plainly indicating the natural and proper method of removal. The accompanying cut,† from a drawing by "Dr. Edward N. Brush, who has several times assisted me in operating, will give a very fair idea of the proceedure."

The fingers of the operator are represented beneath a vascular portion of the pedicle, separating it from the walls of the tumor."

This separation is to be carefully made, until the vessels are traced to their termination. To make the illustration plainer, the tumor is represented as raised from the abdominal cavity, and supported by the hand of an assistant, but, of course, where extensive adhesions are present, this is impossible and the risks of removal are greatly augmented.

Formerly, the operation in such cases was abandoned. When adhesions exist, they are to be separated, and the process continued to the pedicle. The capillary vessels thus broken (during the process of enucleation) do not bleed, for the band contracts, and corrugates the larger trunks, while the broken off capillaries ooze a little for only a minute or two, and a dry napkin, applied for a short time, is all that is required."

As for securing the pedicle by the less valuable methods—acupressure, *écraseur*, the galvano-cautery, or by twisting and torsion, I shall not take up your time in discussing; as they possess no

* See Appendix Case III.
†Kindly loaned by Dr. Miner.

advantages; but the remaining two methods—the actual cautery and the ligature—demand especial consideration.

The Actual Cautery.—This method introduced by Mr. John Clay, a celebrated ovariotomist, of Birmingham, England, for the purpose of arresting hemorrhage from parietal and visceral adhesions, was seized by Mr. Baker Brown, for the treatment of the pedicle also; and with most excellent results. It consists in compressing the pedicle with a temporary clamp while being divided, or rather sawed off, by a wedge-shaped cautery iron, heated only to a white heat, so as to burn its way slowly through the structure. The clamp is then unscrewed, and after waiting a short time, to secure if necessary any bleeding vessel, by a ligature or another touch of the cautery, the stump is allowed to recede into the peritoneal cavity, and the abdominal wound is completely closed. Although this plan of dividing the pedicle yielded unparalleled results in the hands of the late Mr. Baker Brown, very few since his lamented death, have adopted his procedure, except in cases with very short pedicles, and then only as a *dernier ressort.* Recently, however, one of the most brilliant ovariotomists of the day, Mr. Thomas Keith, of Edinburgh, has practiced this method in over fifty cases, "and out of 241 operations, (by various methods) has saved 206 lives—a success hitherto unequalled in the history of any capital operation." But most operators seem anxious to avoid this mode, except in cases where neither the clamp nor ligature is applicable; appearing to think that the danger of secondary hemorrhage decomposition, and septic absorption is increased thereby. For instance take the following quotations:

"In ovariotomy, the great thing is security against hemorrhage; and that, I think, is best gained by the use of the clamp or the ligature." Dr. Robert Barnes, "Transactions of the "International Medical Congress," of Philadelphia. Page 806.

Prof. Thomas, in his excellent work on the Diseases of Women, says:

"Mr. Baker Brown introduced the plan of amputating the tumor by means of the actual cautery, and claimed the astonishing results of twenty-nine cures in thirty-two operations. The insecurity against hemorrhage attendant upon the method will probably prevent its competing with those already mentioned, but in certain rare cases in which the part to be amputated is deep within the pelvis, it offers great advantages."

Schroeder, in his recent work, page 422, remarks as follows:

"The actual cautery is especially recommended by Baker Brown. The fear that the gangrenous eschars, replaced within the abdominal cavity may excite peritonitis, seems to have little foundation. The reproach is better grounded that cauterization does not surely prevent subsequent hemorrhage, especially from the large vessels; and the combination of ligature with cauterization of the pedicle seems to involve serious danger, because gangrene of the ligated portion more readily occurs under these circumstances."

And very recently, in a clinical lecture on the treatment of the pedicle in ovariotomy, Mr. Christopher Heath, made the following statement:

"I have employed it (the actual cautery) in several of my cases with good effect, but I do not think it so safe as the ligature; for however careful you may be to cut the pedicle slowly with an iron, not too hot, so as to sear the cut edges thoroughly, there is always the risk of some small vessels bleeding and requiring a ligature, and sometimes the burnt edges become separated and the bleeding is free. It is exactly the difference between applying torsion to a large artery and putting on a ligature; with the last, one feels perfectly safe, whilst with the former something *may* go wrong."

On the other hand, Mr. Thomas Keith after his large experience with the cautery, gives it as his opinion that:

"It is a good method and one which has had scant justice done since Mr. Baker Brown's death."*

Apart, however, from Dr. Keith's large experience, nearly all ovariotomists agree that the cautery method possesses great advantages in certain cases, especially when the pedicle is very short and deep within the pelvis. The only conclusion, it appears to me, deducible from this reasoning, is, that if the cautery method offers great advantages in certain difficult cases, it would answer even better in all favourable ones.

The Ligature.—The most approved manner of securing the pedicle by this procedure, consists in passing a strong double ligature, made of silk through the centre of the pedicle near its root, with a probe or large needle, dividing the loop and tying each half separately, and as an extra precaution passing one of the ligatures tightly around the whole pedicle; the ligatures are all cut off short, the pedicle divided half an inch outside of the ligatures, the stump dropped into the pelvis, and the abdominal wound absolutely closed. This method of "tying and dropping," according to Dr. Peaslee, one of the best authorities on these questions, was practised in New York over fifty years ago. But to the late Dr. Tyler Smith, belongs the honor, at all events, of reviving and popularizing the method, he having had a series of most successful

* "The great strength of Dr. Keith lies in the thorough preparation of his cases, and in the care which he takes with them; personally I am ready to use any method that the case may demand." Dr. Alexander R. Simpson, of Edinburgh, at International Medical Congress, Philadelphia, page 807.

cases.* Tyler Smith used Indian hemp; Marian Sims, silver wire; and others various other agents, such as horse-hair, catgut, whip-cord &c. It was claimed that catgut, being an animal substance and absorbable, would prove to be more effectual than any other agent; but experience proved that it was liable to slip and become untied, and consequently it failed to meet the expectation of its advocates. Gradually the good, old-fashioned, silk ligature, itself an animal product, has become the favorite for this purpose; strange to say, however, whatever ligatures are used, it is impossible to find them a few months afterwards, and the question is, what becomes of them? It has been suggested that they become partially if not entirely absorbed; but the experiments of Spiegelberg, Waldeyer, and Maslowsky, on the horns of the uteri of animals, prove that not only the ligatures, but also the stump beyond them, become encapsuled by effused lymph. It is claimed for this intra-peritoneal method, that it is simple, easy of adaption, applicable to all pedicles, and admits of the immediate closure of the abdominal wound in its whole length. That the "tying and dropping" method is a good and successful one, and gradually coming into popular favor, it is needless to dispute; indeed, it is easy to foresee that it is destined, ere long, to become the favorite procedure.

Having given as much space to the consideration of the best methods of securing the pedicle, as a paper of this kind will permit, it is now only necessary to make a few remarks by way of endeavoring to "draw the lines" a little closer than has heretofore been attempted. We have seen that there are two methods worthy of commendation: *The extra-peritoneal*, and *the intra-peritoneal*. We have seen that the extra-peritoneal method is best accomplished by means of a clamp, secured external to the abdominal wound, and the intra-peritoneal method, by either enucleation, the actual cautery, or the silk ligature; neither method appearing to possess advantages superior to the other.

The conclusion that forces itself upon the writer is, that either method, well-performed by a painstaking and skillful operator, who gives personal and great attention to the details of the preparation, and after treatment of his patients, will yield about equal results; and, consequently, it does not matter much to which method recourse is had, provided it is well executed and receives the same vigilant supervision.

It is highly important, therefore, that the operator should be unprejudiced—not wedded to any particular plan; but that he should proceed to each case prepared, and desirous to adopt that method which, under the circumstances, seems best adapted to that particular case.

(To be continued.)

* I am myself inclined to the use of the ligature, and I now again refer to Dr. Tyler Smith's method of treating the pedicle as the best of all methods, and the one to which all others will, in my opinion, ere long give place."—Dr. E. R. Peaslee.

SECONDARY UTERINE HÆMORRHAGE.

BY A. D. MILLER, M.D., NEW DUNDEE, ONT.

Allow me space in your valuable journal for notes of an alarming case of secondary uterine hæmorrhage which I had the misfortune to encounter in my short experience in practice.

Mrs. M.—æt. 24. Canadian, strong constitution. Weight about 110 lbs. First confinement difficult; child expired on 2nd day. From her description subinvolution probably existed. Her health was poor until after her second confinement, which was quite easy. Tolerably healthy afterwards, but womb (to use her expression) "size of goose egg, up near the navel and pointing forward." During her third pregnancy she suffered from lameness of the left leg, and considerable pain in the breasts at night.

On the 24th of Oct., 1877. I was summoned to attend her in her third confinement. Labor difficult; as the legs were becoming paralyzed, uterine pains strong and child making no advance, I delivered her by instrumental aid (forceps.) Child still born, and seemed as if it had been dead for some time. Weight of child nearly 12 lbs; dimensions of head, bi-parietal, diameter 5 inches, occipito-frontal 5¾ inches, occipito-mental 6¼ in. Had I not seen the case, I would not have believed that so small a woman could have given birth to so large a child, without mutilation.

Oct. 28th. Well as could be expected; uterus apparently large but not tender on pressure; discharge natural.

Oct. 31st. Still doing well.

Nov. 5th. Summoned to see her by her husband who said she was fainting; she sat up in the chair the previous evening for about five minutes while the bed was being made. About half-past one p. m. while turning in bed, flowing suddenly commenced, the uterus rising up on the left side as high as the umbilicus. Before my arrival she had fainted. I removed the clots, and by kneading and cold shower succeeded in arresting the hæmorrhage the uterus being apparently well contracted. I then gave instructions how to proceed if the hæmorrhage came on again, and left a mixture containing ergot, plumb. acetas, and cannabis indica.

Nov. 8th. Summoned again in haste; flowing had been gradual up to this time, but while turning over on the right side, it suddenly increased, the uterus rising up on the right side. Had succeeded in partially arresting the hæmorrhage by the time of my arrival. Found her unable to converse above a whisper, and complaining of strange sensations in her head. By pressure upon the abdominal aorta I completely controlled the hæmorrhage and relieved the sensation in the head, so that she was able to converse. Elevated the foot of the bed 25°, and left my enema so that they might use cold water injections in conjunction with cold showers if the hæmorrhage came on again. Ordered the medicine to be continued, and after renewing my instructions, giving particular directions about pressure upon the abdominal aorta, I reapplied the bandage and left her quite comfortable.

Nov. 10th. Summoned again; flowing commenced without any cause, collapse set in; had succeeded in stopping hæmorrhage before my arrival, principally by pressure upon the aorta. Raised the foot of the bed 45°; this gave her a throbbing pain in head. Remained all night; proposed uterine injection of an astringent if hæmorrhage came on again. Slept about 2 hours.

Nov. 11th. Had the pleasure of meeting Dr. Bowlby in consultation. He agreed with me about the seriousness of the case, and the treatment, and proposed in addition, ipecac as a uterine tonic, also agreeing that the cause was want of tonicity. Left about 11 a.m., leaving her comfortable, but was summoned again at half-past one, p. m. Hæmorrhage returned without any cause; had succeeded in partially stopping it before my arrival. Found her completely collapsed, unable to speak or see, and as she afterwards told me a ringing sensation in her ears, and unable to raise her finger from the bed, although putting forth all her strength. By firm pressure upon the abdominal aorta, and administering brandy and milk (as had previously been done), in about ten minutes she was able to converse, telling what change the pressure on the aorta made on the sensations in the head, although it paralyzed the lower half of the body. Previous to this the legs and arms were cold, also the face nose and lips. As the hæmorrhage had ceased, I waited until she could converse a little more. I then explained again about the probable result of the injection. She said it was a battle between life and death, *death* if flooding came on again, life probably by the use of the injection, and implored me to use it. Having given my position (pressure upon aorta) to a valuable assistant (her mother) I prepared the fluid for injection, containing one in ten of tr. fer. perchlor. About six ounces of the mixture was used. Filling the bulb with the fluid I passed the tube up to the fundus, making sure that the fluid could escape by passing my finger into the os by the side of the tube, and pressed *gently* upon the bulb, merely enough to force the fluid into the uterus. After about 2 oz. were injected, it began to return. The patient experienced a slight sensation of "smarting and drawing." The same medical treatment continued. A bladder filled with ice to be applied over the uterus for a few minutes every 2 hours while awake, and beef essence milk and stimulants.

12th. Slept about 4 hours quite comfortably except a beating pain in the head; catheterized both morning and evening; bowels moved by means of injection. Pulse 125, not perceptible at the wrist.

13th. Slept quite well; pulse 120; had a slight flow which the nurse succeeded in stopping, and while she was kneading, a wedge-shaped clot came away the smaller end being florid.

At her request I used the injection again, 1 part in 12 of liquor ferri per-sulph.; used about 5 ozs. with same precaution as before.

14th. All symptoms improving, lowered foot of bed slightly. 15th. Still improving, applied ice every four hours. 16th. Continues to improve. Slept well. Ice applied four times a day. Dis-

continued ipecac. and acetate of lead, and added quinia and acid sulph. aromat.

18th. Still improving.

20th. Continues to improve, lowered foot of bed to level.

22nd. Feels quite comfortable. Discontinued application of ice, and ordered a mixture of iron, quinine and acid sulph. aromat. From this time she continued to gain rapidly, and to-day (Feb. 5,) is able to perform a considerable portion of her household duties, and her cheeks have regained their wonted rosy tint.

REMARKS.—The occurrence of hemorrhage in this case seemed to be due entirely to an atonic condition of the uterus. Query? Was atony caused by previous subinvolution, displacement, over-distension from carrying so large a child, or severe uterine contraction? In no instance does the practitioner require greater coolness and presence of mind than in such cases as these, for the life of the patient depends upon prompt and decisive action.

TWO CASES OF MATERNAL IMPRESSIONS.*

BY H. M. MACKAY, M.D., WOODSTOCK, ONT.

CASE 1.—Mrs. B——, the mother of a fine healthy boy was during her second pregnancy much affected by the sight of a hand with two thumbs on it. It so shocked her, that she became anxious and full of dread, lest her own unborn child should be similarly deformed. Having attended at her confinement, and not knowing anything about her alarm, she surprised me after the birth of the child by asking, "Are the hands all right?" On examining, I found on one of them a supernumerary thumb, of normal size, growing from the dorsum of the metacarpo-phalangeal articulation of the natural one. In every other respect the child was perfectly formed and well developed.

CASE 2.—Mrs. H——, mother of several healthy children, was severely shocked during the pregnancy referred to in this report by a sad accident to her husband, and which afterwards proved fatal.

To make the case more intelligible, I will first relate the accident referred to. Mr. H——, a pump-maker, was engaged in a well at the depth of thirty-five feet staying a pump, when the stone walls suddenly gave way. The stones, forming a partial arch over his head, prevented his being instantly crushed. After sixteen hours of anxious, weary labor, his voice, faint and indistinct, being audible all the time, he was found still living, with his arms and legs clasped around the pump-log, a position into which he sprang, as he afterwards stated, when he felt the stones moving. When taken out, cold and numb, his feet were turned inwards as in the act of climbing. Two stones had pressed upon him, one on the head left a contusion, the other, on the lumber region of the spine, produced a slough. He lived only five days after the accident. During this time he was very restless, but much relieved when some person leaned over him so that he could clasp his hands around them. Mrs. H——, six months advanced in pregnancy, was present at the rescue, and nursed her husband almost without intermission up to the time of his death. Three months afterwards she gave birth to a deformed infant, the abnormalities of which bore a striking resemblance to the condition and marks on the father, produced by the accident in the well. Its feet were turned inwards, with double talipes varus; on the side of the head was an ecchymosis, and in the lumbar region of the spine a wound differing from an ordinary spina bifida, in their being no abnormal fluid in the subarachnoid space, and besides the spinal processes and laminæ of the part, all the structures external to the membranes of the cord were deficient. The cord of normal size was visible through the membranes. The wounds on the head and spine corresponded to those referred to on the father, more especially the latter, as a slough when removed leaves exposed the normal structures underneath. The child lived five days, the same length of time as the father lived after the accident. Another, and the most remarkable coincidence, was that the child resembled the father, in not resting, only when some one held its hands firmly grasped. The latter circumstance I could not believe until I saw unmistakable evidence of it. As I entered the room one day the child was sleeping quietly, the nurse holding its hands enclosed in her own. She mentioned to me the peculiarity, and as I expressed myself as being doubtful of the fact, she quietly and gently

*Read before the County of Oxford Medical Association, January 31st, 1878.

relaxed her hold. No sooner done than the child screamed as if in great distress, and as soon as she seized them again it became calm and quiet, and remained so while the hands were held.

My first case admits of being explained as an accidental coincidence, for there does not of necessity exist any relation between the fact of the mother's having seen a hand with two thumbs on it, and that of her own child being born with a similar deformity. Although, when all the circumstances of the case are considered, it does seem to me as no more than probable that they stand to each other in the relation of cause and effect. But I do think that the laws of probability will not allow of a similar interpretation in my second case.

There were the five points of resemblance. Feet of child turned in like those of father when taken from the well; injuries on head and back corresponding with those on father; lived five days; and the disposition to have the hands supported, all constituting a chain of evidence not easily to be got over. I felt the greater confidence in bringing the latter case before you, knowing that a medical man here present, Dr. Millman, saw it, and I have no doubt but that he remembers the principal facts as I have here detailed them.

I am aware that the subject of maternal impressions is, at the present time, receiving a good deal of discussion, more especially in England, and also that able minds are ranged *pro.* and *con*; so I thought the cases of sufficient interest to be brought before this Association.

CASE OF OVARIAN DISEASE WITH ABSCESS IN CORRESPONDING ILIAC REGION.

BY J. R. HAMILTON, M. D. C. M., STRATFORD, ONT.

Mrs. E——, a married woman aged twenty-nine years, and the mother of two children, the youngest about three years of age, consulted me at my office on the 15th of October, '77, in reference to a uterine trouble, from which she had suffered for some two or three years, and for which she had consulted physicians innumerable.

The present condition of the patient is that of weakness, pallor, and slight emaciation. She complains of pain and tenderness in the hypogastric region. In making a cursory examination I found the pulse only slightly accelerated, and the heart and lungs normal. When making a vaginal examination next day I found the os lower in the vagina than natural, the lips hard and contracted. On opening the os with a large catheter there was a quantity of pus escaped, and I was given to understand by the patient that this discharge was of frequent occurrence, and was always followed by temporary relief. Where this discharge came from I could not well make out, not being of a carcinomatous nature, and there being nothing to indicate an intra-mural abscess. For some time I doubted the patient (who was inclined to be hysterical) but on making examination subsequently, I found the same discharge when the os uteri was opened. I prescribed tonics and an opiate every night as she rested badly. She continued in this way for a time, expressing herself somewhat relieved of pain and able to walk to my office occasionally until the 26th December, when she was compelled to remain in bed, and on the 28th I found her with a very rapid pulse, tenderness of abdomen, vomiting, tympanites, pinched features, and all the symptoms of peritoneal inflammation. I prescribed opiates, fomentations, &c., but she remained in this state and gradually sank and died on the 5th inst.

Autopsy fifteen hours after death. Drs. Hyde, Roe, and Hanavan who had seen the case were present to assist me in making the *post mortem*. On opening the cavity of the abdomen we found the small vessels of the peritoneum injected and the greater portion of that organ highly vascular. We found the uterus very small and contracted, but without any trace of organic disease. The cavity of the abdomen on the left side as well as the pelvic cavity on the left side were filled with pus. We found the Fallopian tube and ovary of the right side in a healthy condition; the Fallopian tube on the left side was also normal, but the left ovary was almost completely gone, a collapsed cyst being all that remained, and that surrounded and imbedded in pus, the only outlet for which to the os that we could find must have been through the left Fallopian tube. The seat of abscess must have been in the *ovary* in the first instance, but the rectum as well as the sigmoid flexure of the colon were becoming involved; the liver and other organs of the abdomen as well as the contents of the thorax we found in a normal and healthy condition.

ON SIMULATED ONE-SIDED BLINDNESS, AND HOW IT MAY BE DETECTED.

BY ADOLF ALT, M.D., TORONTO.

LECTURER ON OPHTHALMOLOGY AND OTOLOGY, TRINITY MEDICAL SCHOOL.

In countries where every healthy man is forced to do military service, it often occurs that young men try to evade their military duty by simulating one-sided blindness. A great many methods have been devised, therefor, to detect such simulation. This was the more necessary since there are cases of real blindness, of which we are not able to detect the cause by the ophthalmoscope. It is, however, not the military service only, which induces people to such simulation, and there are a number of reasons why one-sided blindness may be simulated in this country as well as in any other, for instance in actions at law with a view to obtain a large amount of damage for an injury etc. It thus would seem to be necessary for the general practitioner, to be acquainted with at least some of the speediest methods, of arriving at a correct opinion of the case before him.

The most common way to detect simulated one-sided blindness, and one which is well known, is by placing a strong prism before the pretendedly healthy eye, thus producing a double-image. This test, though perfectly reliable with an individual who does not know of its application, is nearly worthless now, since most of the simulators know it. The same applies to the test with a stereoscope which is based on the same principle.

A very simple test has been taught lately by Knapp. He makes use of the movements of the eye in monocular and binocular fixation. First leave both eyes uncovered, and move an object (your finger) towards and from the individual's face and direct him to follow its movements with his eyes. If both eyes keep their usual axis well fastened upon the object and follow it well, neither of them can be blind. Then you may alternately cover and uncover the alleged blind eye, while the other one is fixed upon the object of fixation. If the former, when quickly uncovered at once moves towards the object of fixation and fastens itself upon it, it cannot be blind, because a blind eye would not take part in the act of binocular fixation.

The same idea lies at the base of the method applied by von Welz. He places a prism of about 12°, base outward, before the alleged blind eye. This will produce, of course, a double-image. In order to overcome the disagreeable feeling of seeing double the individual will turn the eye under the prism towards his nose, if it is not blind. If he is thus caught, we may catch him again by taking the prism quickly from his eye. If this eye now turns outward again to get rid of the now existing double-vision, the eye is doubtless doing its duty.

A very ingenious method is that of Cuignet. He traps the simulator by letting him read from a book and placing a rod, about an inch broad, before the healthy eye in such a way, that it intersects a line from this eye to the book and nearer the former. If the individual now reads quietly on without moving the head, he must read the letters which are covered by the rod for the healthy eye, with the pretendedly blind one.

Most recently Snellen published a new test, based on the perception of colours. He tests the defaultor with test-types of alternately red and green colour, after having placed a green glass before the sound eye. If the other one is actually blind, he will see the letters of one colour only; the red ones, if the letters are printed upon a white, the green ones only if they are upon a black background.

Some time ago I was ordered in my position as surgeon to the German Army to examine a young German with regard to his fitness for military service. After I had examined him and declared his pretended heart-disease a falsehood, he insisted upon his being blind of one eye. The simple test by watching the movements of the eyes in monocular and binocular fixation proved that a lie also. To make it more certain, I used a method which to my knowledge has not yet been described. He decidedly knew the test with one prism. I therefor placed two strong prisms with their bases together and these before his healthy eye in such a way, that the united bases crossed the centre of the pupil, and directed him to look at a candle about 12 feet off. He apparently did not know, how to get out of the affair now and after some hesitation he acknowledged to see three images. Two of these, of course belonged to the healthy eye and were due to the different refraction of the two prisms, while one (the middle one of the three) belonged to the alleged blind eye.

Correspondence.

THE CONTRACT SYSTEM.

To the Editor of the CANADA LANCET.

SIR:—I beg to call the attention of the profession to the dangerous position into which it is being drawn by the degrading and unprofessional practice of many of its members, in accepting the appointment of physician to certain "orders or societies" for a small yearly fee from each member, (generally $1.00 per annum,) for medical attendance including medicine.

Doubtless, this duty is undertaken, relying mainly on making up the loss between $1.00 and the usual charges by being employed to attend the families of the members of such societies; and upon the well-known fact, that the medical man of the "order," has a kind of lien upon the families of its members; and upon the further well-known fact, that in order to secure the success of this modern scheme for securing the services of medical men at labourer's wages, there is a continual canvass going on in the community by the members of these "orders," in behalf of the "society's doctor," to the great detriment of his brother practitioners. This whole proceeding, so unjust and injurious to the whole profession, except the few who descend to join in the scheme, is leading inevitably to a state of things equally detrimental to the profession and the general public.

No one can fail to be struck with the difference between the proceedings of these modern philanthropists, the Odd Fellows, the Foresters and many others, to which we shall doubtless soon have to add the Grangers, and the time-honoured order of Free-Masons. They all profess to be charitable associations. But the honest old mason contributes his charity from his own money. He is not content to give of "that which doth cost him nothing," whereas the vaunted charity of these modern organizations, is in great part a charity at other people's expense, and notably, at the expense of the medical practitioner. But what I desire particularly is, to ask my brethren to reflect, and endeavour to see before it is too late, what this modern movement is leading to. I do not refer to the evil effects to the community of a multiplicity of secret societies, whose sectarian zeal and private scheming for their own advancement, (like that of all secret combinations,) places the rest of the public at an unfair disadvantage, and renders equal justice and fair play to all in the struggle for life impossible. These evils are not only patent to all who give the subject the smallest consideration, but they very far outweigh in my humble judgment, all the good that can fairly be claimed for them. Society does not exist exclusively for the benefit of secret societies, and what chance has the uninitiated and unsuspecting public against the secret cabaling and scheming of men, banded together for their own exclusive benefit. There can be no doubt that these evils have been the real cause of many of the modern organizations. Men came to feel, that the only way to counteract or defend themselves against the secret influences of existing organizations, was to get up other organizations. It has been a kind of mining and countermining. There is a secret society in this neighbourhood, formidable in numbers, and therefore formidable in influence. Of all the resident medical practitioners, only one would accept the appointment of "society doctor." The consequence of his appointment is, that there is a continual canvass going on, in favour of that gentleman, not only by the members of the society, but by many of their immediate friends and neighbours.

Respectable mechanics complain that they cannot get employment from members of a certain secret society, if any mechanic of that society can be got. They go past the neighbouring shop to buy their goods of a member of the society. A man sees that his neighbour is provided with medical attendance including medicine for $1.00 a year. The inevitable result of all this must be the continual increase of secret organizations, as a matter of self-defence against existing ones—until the country is filled with rival cliques and combinations, more or less hostile, from one end to the other.

Supposing medical men can be found to take the appointments on the terms demanded by these societies, how, it may be asked, will that affect the medical profession and the general public? I do not pretend to be able to answer these questions fully; but I think it is easy to foresee the following results: (1) At least nineteen-twentieths of the professional men must betake themselves to some other occupation—for the large portion of the entire community that would be absorbed in these

numerous societies, would require a comparatively small number of medical men: (2) the public would lose the services of the ablest men, for as a rule it would be only second or third class men who would submit to the humiliating terms imposed by the societies: (3) the rapid decay of medical science, and the lowering of the social status of the profession. This scarcely requires proof; it is self evident—What professional man that entertains even the most modest estimate of his just claim to the respect and esteem of his fellow men, would consent to place himself in a great degree at the mercy of every noisy demagogue belonging to the "society." Once he accepts the appointment, every member will have a voice in his dismissal, and therefore he is forced to pander to the ignorance and prejudices of all. His bread and butter depends on his subserviency. The medical men will come to occupy very much the status of the Russian clergy, who are more the slaves than the religious instructors of the gentry, and even of the middle classes. All this will necessarily lower to a lamentable degree, the literary and scientific standard of the whole profession as a body. Much more may be said, and ought to be said on this subject, but I feel that I have already trespassed far too much on the space allowed to correspondents.

Yours truly,

Feb. 12th, 1878. ONE OF THE PROFESSION.

AFFILIATED MEDICAL SCHOOLS

To the Editor of the CANADA LANCET.

SIR,—In the issue of the LANCET for February, I noticed a paragraph to the effect that the Toronto School of Medicine has been advertised for the past three years as the Medical Department of Victoria College, Cobourg. I was much surprised at this statement, and have been at some pains to look into the matter, and have been much struck with the following facts of which sooner or later some notice must be taken by the Senate of the University of Toronto. On page 25 of the Victoria College calendar for 1877, will be found the following:—

"MEDICAL DEPARTMENT—PROVINCE OF ONTARIO.

Students intending to graduate in Victoria University, are recommended to attend lectures in the Toronto School of Medicine, from which school certificates of attendance will be accepted by the medical examiners of this University."

Then follow the names of the different members of the Faculty of the Toronto School of Medicine: Drs. Aikins, Wright, Richardson, Ogden, Thorburn, Barrett, Oldright, MacFarlane, &c., &c. At the close of the announcements in the medical faculty, the calendar says:—"Additional information may be obtained from Dr. Aikins, President of the Toronto School of Medicine."

How a pious Methodist, like Dr. Aikins, could say in the face of this, in his letter to the Lieut.-Governor in Council, asking for the disaffiliation of all medical schools connected with the Toronto University with a view to a re-arrangement, "that the students of the Toronto School of Medicine can avail themselves of the degree of the Toronto University *only*" is a mystery. (See Return No. 32, 40 Vic. 1877, page 10).

Some may not be aware of the fact that this school being thus advertized is in direct contravention of, at least one of the conditions of affiliation lately laid down by the Toronto University and which are the same for every affiliated school, and of course equally obligatory upon all. The condition thus contravened is the first resolution, passed June 12th, 1877, by the Senate of the University of Toronto, and is as follows:—Resolved firstly: "That no medical school or college should be admitted to, or continued in affiliation, which is, or becomes, connected with another University, either as its medical faculty, or by its professors or lecturers being examiners for the degrees, honors, scholarships, or standing, of another University, *or its holding out in any way* that its examinations will be accepted by another University, as entitling to degrees, honors, scholarships, or standing—Provided that this shall not preclude any one, or more individual professors or lecturers *bona fide* becoming examiners in another University—the intent being, that the faculty of any affiliated college, or any part thereof, shall not be permitted to substantially conduct the examinations of their own students for degrees, honors, scholarships, or standing in another University."

Any school applying to be affiliated shall be informed of this regulation, and shall be required to enter into an undertaking to observe it, subject to the express condition that upon breach of such undertaking, the statute shall be repealed and affiliation cancelled."

Yours respectfully,

M.B., TORONTO UNIVERSITY.

March 13th, 1878.

GREAT WESTERN RAILWAY MEDICAL TARIFF.

To the Editor of the CANADA LANCET.

SIR,—If too much space has not already been taken up in discussing the subject of the Great Western Railway Provident Society and its relation to the medical profession, allow me to call attention to a few points which seriously affect the profession at large. Mr. Broughton's letter regarded the matter from a commercial point of view. I propose to look at it from a medical standpoint. What shall the conduct of the profession be towards the officer of a company who, by adopting a *cutting-under* tariff, sets himself in antagonism to the tariff of fees adopted by the Division Medical Association?

All division associations which have adopted a tariff of fees, have decided on a dollar as the minimum charge for a single visit to a patient. This action by the profession has been conceded by the laity, as fair between man and man, but if the officers of the Provident Society will take the trouble to compare the old with the new *regime* they will find that the latter will not average fifty cents per visit, out of which they have to pay for medicine. In a malarial district such as the railway passes through near Windsor where quinine is so much required, it would be simply impossible to live at the company's prices. The physician would be compelled to use cheap drugs, his patient's recovery would be delayed, and instead of being a provident it would be an *im*provident society.

Railway employees are, as a rule, well informed men, and general readers; they will very soon discover that they are the victims of *cheap treatment.* One of the prospective advantages of the society's medical employee is, that if he treats the head of the household he will also be called in when other members of the family are ill. This is the point where the code of medical ethics adopted by the profession will clash with the rule adopted by the company. Here is a medical man, by virtue of a rule laid down by a railroad company, secured the *entre* of a family where, only for the fact of his being the company's officer, he would never have been employed. The society's rule has introduced him and supplanted me. Am I to accept the situation in a spirit of resignation, or am I going to take such a stand as will protect my own interests, and by so doing place myself in antagonism to my brother practitioner? In other words, am I going to extend the etiquette of the profession to a man who is taking away my practice, by a system of *cheap charges?* I trow not.

You state the case correctly, when you say that the medical profession has itself to blame for this state of things, by its members encouraging clubs and societies to benefit themselves, principally at the expense of the doctor. It lies with medical men themselves to say whether they shall stand by one another and secure an honest fee, or lend themselves to clubs, societies, and life assurance companies, to perform the work upon which the very existence of these organizations depend, for the insignificant fee usually offered. The very spirit of the medical act, and the code of ethics instituted under it, are violated; the whole tendency of medical associations which seek to foster and secure fraternal conduct, is defeated by the introduction of such elements of discord.

Mr. Broughton has no very decided opinion of the motives which induced 26 out of 28 physicians to accept the pittance offered by the society. I can tell him that he will find the true explanation of it in the spontaneous desire on the part of medical men to aid any good work—not stopping to enquire into its merits—together with their general apathy about making money, attributes which serve to make the profession in Canada, and perhaps the world at large, poor, where they might be rich; these motives, I say, will furnish the true reasons for the hearty, though ill-considered response he met with in calling for medical assistance on such beggarly terms.

Yours very truly,

C.

Windsor, March, 1878.

To the Editor of the CANADA LANCET.

SIR,—In the March number of your journal, a case of poisoning by arsenic is reported as having been treated by dialysed iron.

After relating the history, he says:—"I administered the emetic and promoted vomiting by large draughts of warm water. After the stomach had been thoroughly emptied, I gave a tablespoonful of dialysed iron, diluted with water, which was

rejected in a few minutes." He then goes on to describe the symptoms of collapse, with the treatment adopted to combat them, and concludes by attributing the woman's recovery "entirely to the dialysed iron."

Now, Sir, inasmuch as he admits that no iron (the antidote) was administered until the stomach had been entirely emptied of its contents, I would like to know in what way he supposed the iron acted.

Yours very truly,

"MEDICUS."

Ottawa, March 11th, 1818.

PILIFEROUS SEBACEOUS CYST.

To the Editor of the CANADA LANCET.

SIR:—I enclose you a short account of a case which to me at least seems worthy of inserting in your valuable journal. In November 1876, a young man, J. R——, came to my office wishing me to remove a tumour about the size of a hen's egg, situated over the mastoid portion of the temporal bone, behind the left ear. He says it has been there for the last 14 years, and as well as he can remember grew to its present size in a few weeks without any previous cause being assigned. It has given him no inconvenience since, only its appearence; it is conical in shape with a broad base and gives a soft ganglionic sensation to the feel. On cutting down upon the tumour which I endeavoured to remove intact, I found it to be cystic in character, filled with a white sebaceous looking matter of a soapy consistence, mixed up in which were numerous black hairs from 9 to 12 inches in length loosely coiled round in the cyst, and of the same colour as the hair of the patients head. As the cyst walls were very friable, and blood was flowing pretty freely, I broke it up well, evacuated it throughly, and filled the cavity with lint soaked in carbolic oil and allowed it to discharge freely for 4 or 5 days. At the end of a couple of weeks it had healed completely with no trace whatever, save the scar.

In the first week of Jan. 1878, two years since first removal, he returned again, it having reappeared he says about a year after the first operation, and attained its former size in a couple of months. It looked similar in every respect to the one before mentioned, but was somewhat larger. Owing to the peculiar nature of the contents of the former tumour I resolved to remove it completely this time, but as before I found it utterly impossible to preserve the cyst unbroken, the matter oozing out; it also contained the same peculiar black hairs. Having evacuated the contents I got hold of one side of the cyst and carefully dissected it off the bone to which it was firmly attached. On examining the cyst I found that the inside presented a well formed cutaneous surface with a soft velvety feel and was very thickly studded with black hairs proving to my surprise that they had actually grown from the inside. None of those attached were longer than from an inch to an inch and a half, as all the long hairs were lying loosely in the matter unattached. The case seems to me unique; there was no history of previous injury or anything to account for the abnormal growth of hairs within the cyst walls.

Yours respectfully,

D. O'BRIEN, M.D.

Renfrew Feby. 24th, 1878.

Selected Articles.

CASE OF TRAUMATIC TETANUS; RECOVERY.

BY A. LAWSON, M.R.C.S. LOND., PROFESSOR OF SURGERY, HALIFAX MEDICAL SCHOOL. N.S.

The following case is probably sufficiently interesting to be placed on record.

G. S——, a fisherman's son, ten years of age, living at Sambro, a village about twenty miles from here, on August 1st, whilst running barefooted, accidentally ran against a scythe, receiving a wound about two inches long on the instep of the left foot, which implicated the extensor tendons; also another on the little toe of the same foot, nearly severing the toe. He was brought to Halifax. Sutures were inserted and the wounds dressed. He then went home to Sambro. On August 9th I saw him for the first time, and found him in the following condition:—The jaws were firmly locked; the risus sardonicus well marked; whole body stiffened with decided opisthotonos; great difficulty in swallowing and breathing; sweating profusely; pulse 144; temperature 103°. The wound of instep was granulating healthily, the stitches having evidently sloughed out, and a small piece of bone was protruding from the little toe, which I removed. The poor boy was literally covered with poultices, all the windows religiously closed, and a fire in the stove, altough it was a very hot day in August. if left in this condition much longer the boy must

have soon died. Severe spasms were induced by the slightest movement. I gave him immediately fourteen grains of hydrate of chloral, and ordered eight grains to be given every hour, with a mustard poultice the whole length of spine, and milk to be given every time he took the chloral, which however, he could only suck through the teeth, and the difficulty in swallowing made it no easy matter. I remained all night administering the chloral and milk myself.

August 10th.—Pulse 120; temperature 100°. No relief of trismus. Body still stiff, but spasms not so frequent or violent. Ordered a continuance of the chloral, eight grains every hour, with milk, and dressed the wound with carbolic acid and oil (1 to 20).

11th.—Worse again, boy refusing both milk and chloral. Temperature 101°; pulse 136, very weak Profuse sweating; trismus continuing with opisthotonos. I remained four hours, giving eight grains of chloral every hour; he also took about half a pint of milk during this time.

14th.—Doing fairly well. Pulse 116; temperature 99°. But few spasms; trismus slightly relieved; spine still rigid, but the legs could with ease be bent upon the abdomen. Continues chloral, but takes very little nourishment. Bowels relieved by enema; passed quantities of flatus. Wounds healing well.

17th.—Had been doing well since last visit, but boy refused chloral, and the spasm had increased again. Gave sixteen grains of chloral with marked relief, and to continue eight grains every two hours; still taking the milk. Is very weak.

20th.—Decidely better. Pulse 98; temperature 99°. Trismus and opisthotonos both relaxing. Boy still fights against both nourishment and medicine. To take ten grains of chloral every three hours.

23rd.—Scarcely any spasms except when moved, even then slight. Pulse 88; temperature 99°. Could pass my fore-finger into the mouth.

From this time he recovered rapidly; the chloral was continued in small doses for a week, and then only given at night. On Sept. 7th he was able to get about.

This case is interesting, I think, in that it was a very acute case, in which recovery is rare; that no other drug except chloral was administered; no stimulants; no nourishment except milk, and very little of that, from Aug. 9th until 23rd.—*The Lancet.*

[Several cases of tetanus are reported in the Lancet for Feb. 16th in which chloral hydrate either alone or in combination with atropine, cannabis indica or bromide of potassium has proved of great value in the treatment of this affection] Ed. CANADA LANCET.

PROTRACTED SYNCOPE UNDER THE ADMINISTRATION OF CHLOROFORM.

(Under the care of Mr. Bryant), Guy's Hospital.

T. C., aged fifty-seven, suffering from disorganisation of the metatarso-phalangeal joint of the great toe on the left foot. History of three distinct attacks of gout.

The House-Surgeon commenced to administer chloroform on a "Skinner" of ordinary size, saturated with the anæsthetic. The "Skinner" had just been used in a prior operation of some length for epithelioma of the tongue. The patient soon began to struggle, not strongly, but in a spasmodic, tremulous way. More chloroform was then poured on the "Skinner," and the patient became quiet, when Mr. Bryant, who was about to operate, required him to be moved along the operating table. This was done in the ordinary quiet way, as used with people under an anæsthetic. Almost immediately the House-Surgeon noticed that the respiration had ceased. The patient was pulled back along the table, his head depressed, and artificial respiration resorted to. The femorals of both sides, as felt simultaneously by Mr. Bryant and Mr. F. Durham, had ceased to beat. The tongue was drawn forward, artificial respiration maintained about twenty-eight to the minute, Mr. Bryant assisting the Sylvester method by intermittent pressure on the thorax with the palms of both hands. The colour of the patient during this period was that generally noticed prior to sickness or heart-failure under chloroform. At this time (four minutes from the commencement of artificial respiration), no pulse at the femorals being apparent, four drops of nitrite of amyl, from a capsule freshly broken on lint, was applied to the patient's nose. Almost simultaneously the colour of the face improved, and the pulsation in the femorals returned; the patient came round very quickly, so as to be "lively enough now," as Mr. Bryant expressed it, and the operation was continued under ether, the pulse beating well at 120, the respiration good, and quicker than normal.

Notes.—The case is a very instructive one throughout, as there was no doubt in the minds of all present that but for the means of resuscitation used the man would have died. The patient had urate of soda deposits in his fingers and toes, knee trouble of the same character, but otherwise seemed healthy. Subsequently his arteries were examined and found slightly affected. The chloroform was very pure (I have since tested it), administered fearlessly, and the efforts for resuscitation attended with complete success. Skinner's "inhaler" is convenient for hospital work, but the material used in it should be changed often. Struggling very often accompanies the administration of chloroform, especially if given boldly to strong, robust

people. The struggling in this case was of that character noticed in persons addicted to stimulants. In either robust or alcoholic individuals is it right to continue the administration boldly? Most emphatically, No. The Edinburgh school may boast of immunity from death by their method, but I think their healthier patients and the purer air may explain much; but whatever it be, no one who administers chloroform to a purely London *clientèle* but will be driven by experience to give it most carefully. The patient should be moved as little and as gently as possible while under an anæsthetic, and also during recovery. In this case there was no excessive movement, the operation was on the foot; the patient had plenty of air. In operations about the jaw, in addition to the dangers consequent on the part, I have seen a difficulty arise from the pressure on the chest, of instruments, or a casual elbow or hand. Sylvester's method of artificial respiration is the best, with this modification: grasp the arm just above the elbow, instead of at the wrist. The reasons are obvious; and the respiration should not exceed twenty-five per minute. When sufficient assistants are present the artificial respiration can be much more efficiently performed by two—one standing on each side of the patient, and working one arm apiece. This is better than only one behind the head; the assistant that pulls forward the tongue and keeps the lower jaw forward can then stand at the head. The tongue should be well pulled forward until the entrance and exit of air to the chest can be heard. The legs should be raised at right angles to the body; this assists the circulation, is an improvement (without interfering with the Sylvester) on the "hanging up head down" plan (which, however, is good in the case of children), and in addition relaxes the abdominal walls. There is no doubt of the efficacy of nitrite of amyl on the circulation; it is now prepared in hermetically sealed capsules, which can be obtained sufficiently strong to carry loose in the waistcoat pocket. I have broken only one so carried during the last twelve months. Those containing five drops are the most useful. I think the strength and frequency of the pulse after resuscitation on this occasion were entirely due to the amyl. Should the patient not come round in six or seven minutes, I should recommend immediate tracheotomy or laryngotomy, as I think the air passing direct through the tube is a stronger stimulant than when passing through the normal passages warm and already impregnated with chloroform vapour. If ice be handy, a piece put in the rectum can do no harm, and has been already noticed as of avail; it interferes in no way with the rest of the process. If the heart still continues beatless after the inhalation of the nitrite of amyl, I should feel inclined to puncture the pericardium, so as to reach the apex of the heart with the electric needle. This being unsuccessful, the substance may be pierced. In no case ought artificial respiration to be relaxed until the above measures have been tried, when, if the patient has undergone a very serious operation and a long anæsthesia, I trust the operating surgeon will always share the result with the administrator of chloroform.—*Medical Times and Gazette, Feby. 16, 1878.*

ON PARACENTESIS OF THE PERICARDIUM WITH A SUCCESSFUL CASE.

BY WILLIAM PEPPER, A.M., M.D.,

Prof. Clin. Medicine, University of Pennsylvania.

GENTLEMEN: You will remember that in connection with two cases of pericarditis of moderate severity, which formed the subject of a lecture several months ago, I referred to a desperate case of pericarditis, with effusion, in which it had been necessary to perform paracentesis. My chief object to-day, in returning to the same subject, is to report at length the latter case, and to make a few practical remarks in connection with that operation.

Sarah C., æt. 17, a well-developed girl, enjoying general good health, had noticed since May, 1877, some shortness of breath on exertion, especially after mounting the long flight of stairs leading to the fringe factory where she worked. She had also been obliged to pass urine more frequently than usual. She had never mentioned either of these symptoms to her parents, fearing that they would make her stop working. In early childhood she had passed through a mild attack of measles; but had never had any other exanthem or rheumatism. On Sunday, September 2, she suffered with præcordial pain. No cause could be assigned for the attack, unless it were that she had been chilled by a draft which blew upon her as she worked. On Monday the pain continued with some sense of oppression. She did not leave the house, but it was not until Wednesday, September 5, that she became quite suddenly so ill as to confine her to bed, when she was seen by Dr. George Rex, with whom I saw the case in consultation, and to whose courtesy I am indebted for many of the facts in connection with it. He found her with a very moderate degree of fever, but with some anxiety and distress, and with rapid pulse, frequent breathing, and severe præcordial pain. By Friday, September, 7, she was much worse. There was still severe præcordial pain with great restlessness and distress. The respiration was very frequent and much laboured. The pulse was extremely rapid, feeble, and irregular. The apex beat of the heart was felt with difficulty, and the

sounds were feeble and distant, though apparently without valvular murmur. The area of cardiac dulness was increased. The tongue was moist and somewhat furred. The stomach was retentive, though there was no appetite. The urine was rather scanty. From time to time there were paroxysms of terrible dyspnœa and cardiac distress, in some of which she seemed almost asphyxiated. Her condition became, in all respects, somewhat worse during Saturday and Sunday, and, in addition, there were on the latter day two convulsive attacks, with loss of consciousness for a few minutes, and slight muscular spasms of the face, arms, and legs.

I saw her in consultation with Dr. Rex, first on Sunday night, September 9. The patient was lying in bed, with but a single pillow under the head. The face was very pale, and the lips livid; the extremeties tended to be cold. There was extreme restlessness and jactitation, with a sense of suffocation if any one even approaches her. It was necessary to fan her constantly. The respirations were over 60; the pulse at least 145; very small, feeble and intermittent. The pupils were dilated; the expression very anxious; the intelligence clear. There were constant complaints of severe præcordial pain. The paroxysms of alarming dyspnœa were now very frequent. On physical examination no lesion of the lung was found. The præcordia was somewhat prominent. The impulse of the heart could neither be seen nor felt, and its sounds were hardly audible, being distant and feeble, and apparently without murmur. The point of their greatest intensity was at mid-sternum, opposite the third interspace. At the normal position of the apex-beat no sounds were audible. No friction sounds were heard. The area of cardiac dulness was much enlarged, and of rudely triangular shape. Its base was on the level of the seventh rib, and extended from one inch to the right of the sternum to two inches to the left of the line of the left nipple; the upper limit of the dulness was the second interspace. Its greatest transverse diameter corresponded to the level of the fifth interspace. Changes in the position of the patient's body produced no effect on the horizontal lines of dulness.

The urine contained a slight trace of albumen, and microscopic examination showed a few fragmentary hyaline or granulo-hyaline tube-casts, and a few cells of renal epithelium. There was no œdema of any part, save a slight puffiness about the ankles. The question of tapping the pericardium was discussed, but the parents would not consent. She had been using digitalis and a diuretic mixture. These were continued, ten drops of digitalis being given every three hours. A blister four inches square was applied over the præcordia. She objected violently to stimulants, even in very small doses, asserting that they immediately caused agitation of the heart, with great distress in the head. On the other hand, Hoffman's anodyne gave some relief to the paroxysms. During Monday and Tuesday (September 10 and 11) she grew worse, if possible, and had several slight convulsive attacks. I saw her again with Dr. Rex, late on Tuesday night. She was then dull and listless, with livid lips and cold extremities. The respirations were mere shallow gasps 75 to 80 in the minute. The pulse was over 100, extremely thready and intermittent. At times, also the respirations were distinctly of tidal character, ascending and descending with marked intermissions. Each paroxysm of dyspnœa seemed as if it would prove fatal, and it seemed clear that death would occur before morning. The consent of the parents being obtained, I immediately performed paracentesis of the pericardium with the assistance of Dr. Rex and of C. B. Nancrede. The smallest needle-pointed canula of Dieulafoy's aspirator was employed, with a vacuum jar. The puncture was made in the fifth intercostal space, about one inch inside of the line of the left nipple, *i. e.*, nearly in the normal position of the apex-beat. The needle was introduced in a direction upwards and inwards. As soon as its extremities were fully covered by the soft tissues, the communication with the vacuum jar was opened, and the needle was cautiously pushed onwards. When the liquid began to flow into the jar, and the point of the needle was felt to be free in the pericardial sac, the needle was directed somewhat downwards and outwards. Rather more than eight fluid ounces of reddish serum were removed, after which the flow ceased. The serum contained a large proportion of albumen, many red blood globules, and a large proportion of pseudo-fibrin. No difficulty whatever was encountered in the operation. Once or twice the point came in contact with a firm and apparently roughened surface, which was probably the apex of the heart, coated with lymph. The effect of the operation was magical. The pulse fell to 114, became regular, and much more full. The respirations soon fell to 40, and became much more deep and regular. The apex-beat of the heart could be felt, though still feeble and too high up. The cardiac sounds became immediately much more distinct. The lips grew more red, and the expression improved vastly. She expressed herself as feeling much better, and able to lie quietly. She was ordered iodide of potassium gr. v. and tincture of digitalis gtt. x, each every four hours. The diet of skimmed milk was continued. There was no evidence of any return of pericardial effusion, and for two days she continued very comfortable, although the urine was still faintly albuminous. On Friday, September 15, two severe convulsions occurred; the mind grew dull; the respiration again became rapid, and tidal in character; and the pulse intermittent. On September 16 she continued in a partially uræmic state, with several convulsions.

Still no sign of increased pericardial effusion occurred; but, on the other hand, the area of dulness progressively diminished, and the impulse and the sounds became more distinct. On the evening of this day an enema of infusion of jaborandi (ʒj of powdered leaves in ʒiv water) was given. The effects were rapid and marked– violent headache, repeated vomiting, copious salivation, and drenching sweat, lasting six or seven hours. She passed a more quiet night, and was better the following day. The pulse was now regular, and more full—108 in the minute; and the breathing easier. The cardiac impulse and sounds more distinct, and slight friction sound audible. The use of digitalis, iodide of potassium, and diet of skimmed milk continued.

She had two convulsive attacks on September 17, and on September 18, three severe attacks, in all of which she was unconscious, with frothing at the mouth, and general convulsive movements. The cardiac symptoms continued to improve. There was a trace of albumen in the urine, but no tube casts could be discovered. On September 19, a second enema of infusion of jaborandi was given with the same prompt and severe effect. No further convulsions occurred. The cardiac symptoms continued to improve slowly but steadily. There was no severe dyspnœa after September 28. She was able to leave bed on October 7, twenty-six days after the operation, and from that onward her progress towards recovery was quite satisfactory.

Remarks.—It will be seen that in this case the preservation of life was solely due to the operation of paracentesis. It seemed abundantly evident that, on the evening of September 11, without immediate operative relief, life could not be supported through the night. The renal complication which existed was probably due to the pericarditis and, after the heart's action was liberated, it became possible to deal successfully with the uræmic symptoms. In this connection, it is interesting to note the great value of jaborandi. We have in this remarkable drug a new agent of vast power for the relief of such symptoms. After the operation, there was not the least sign of any return of pericardial effusion, and, although it is probable that adhesions have formed, there are no evidences at present that the heart's action is embarrassed by them. So far as the original disease is concerned, it may be said that a complete cure was effected. The subsequent attacks of subacute peritonitis, and of plastic pleurisy indicate a constitutional character for all of the successive affections of the serous membranes, and I fear that it may prove that they have been tuberculous. * * * *

You will, of course, perceive that at the basis of these practical rules lies the question of an accurate diagnosis. Fortunately, in the vast majority of cases, this can be made without serious difficulty. It is indeed true that errors in diagnosis have been made even by skillful and experienced observers; but in such cases it will be found that very unusual complications or anomalous conditions existed Certainly, if the case is an acute one, and has been under observation while the effusion formed, an accurate diagnosis can readily be made. Nearly always there will have been a friction sound of cardiac rhythm, and this may persist, especially about the base, even after considerable increase in præcordial dulness from effusion has been developed. Then, carefully repeated percussion will show at first extension of dulness about the base of the heart, but soon this will be followed by a change in the shape of the area of dulness, which assumes a rudely triangular form with its base downwards, together with a decided extension of the area. If percussion be practised both when the patient is in the sitting and in the recumbent position, scarcely any difference will be observed in the horizontal level of the dulness, but if the patient be turned first to one side and then to the other, it will often be found that the area of dulness, without changing its shape, has some mobility from side to side. The position of the apex-beat of the heart will also be observed to change as the effusion occurs; it becomes raised more and more, and then becomes lost, though sometimes an obscure sense of shock can be felt over the præcordia after a distinct cardiac impulse can no longer be detected. The sounds of the heart become markedly feeble, distant, and obscure; and the centre of their greatest intensity may be observed to vary from its normal position. In addition, there may be found, in cases of very large effusion, prominence of the præcordia, slight bulging of the intercostal spaces over the heart, and even fluctuation on palpation. If the case has been under observation from the beginning, and careful attention has been paid to the above signs, a large pericardial effusion can scarcely escape detection—unless, indeed, there should coexist pleurisy with effusion on both sides, or on the left side alone. In this event it would probably be impossible to decide as to the presence or absence of pericardial effusion until the liquid has been withdrawn from the left pleural sac by aspiration. If the combined effusions were not sufficiently extensive to cause symptoms demanding operative interference, the ordinary treatment for pleurisy would suffice; while if such symptoms did appear, as in all probability they would, it would be proper to tap the pleural sac first, after which the pericardial effusion could be easily recognized, and treated as seemed appropriate. The case where the greatest difficulty occurs in the diagnosis of pericardial effusions are those which come under observation only after the disease has lasted some time. Here we could scarcely expect to find friction-sounds, and we would be without the valuable aid furnished by observing the progressive changes in the extent and shape of the area of dul-

ness, and in the position of the apex-beat. We must then rely upon the prominence of the præcordia; the enlarged triangle of dulness, with its base below; the absence or altered position of the apex-beat; the distant and feeble character of the heart-sounds; the displacement of the anterior border of the lungs; and the extreme disturbance of circulation and respiration. It is true that an enlarged and dilated heart has been mistaken, and has even been tapped, in mistake, for a distended pericardial sac. But a searching investigation into the history of the case—the fact that the apex-beat, however feeble, is on the lowest level of præcordial dulness—the shape of the area of dulness, which here also is triangular, but with its base upward and to the right; and the character of the heart-sounds, which, though, feeble, are much less distant and obscure than in large pericardial effusions—all of these will combine to enable a correct diagnosis to be made. Again, a solid, mediastinal tumor has been mistaken for a distended pericardium; but I am confident that close attention to the diagnostic points I have given would prevent the commission of this error.—*Med. News and Library.*

BLOODLESS TRACHEOTOMY.

Everyone who has been called upon to perform tracheotomy upon a young child suffering from threatening asphyxia, where the venous plexuses of the neck are engorged, and each touch of the knife may flood the wound with blood, will appreciate any method of operating by which this danger can be avoided, and tracheotomy added to the list of the bloodless operations. The attempt to accomplish this has been several times made. In 1872 M. Verneuil employed the galvanic cautery instead of the bistoury in several cases with success; but this method is evidently ill-adapted for general use, as the necessary apparatus is cumbrous, and only to be found at hospitals. More recently Mons, G. Poinsot, of Bordeaux, has used Paquelin's thermo-cautery with excellent results, and his example has been followed by other French surgeons. The skin and soft parts quite down to the trachea should be divided by successive light touches of the point of the cautery, heated to a dull red color, and when the trachea has been exposed it should be opened with the knife, and the tube inserted in the usual way. The cautery must be used lightly, or its action will be too extensive, and a thick eschar be formed; and if it be used too hot, as is well known, it loses its hæmostatic power. The cautery is not suited for opening the trachea, because the radiation from its hot point introduced into the air-passage would be harmful, and there is some risk of burning its posterior wall; while in adults it is difficult to sever the firm rings with it, and particularly if they are at all ossified, and the loss of substance that an eschar necessarily involves might cause trouble from narrowing of the air-tube. On the other hand, as the use of the knife for this purpose does not cause hæmorrhage, it is free from objection. In fat subjects the wound may become filled with molten fat; this is readly removed with a sponge. In addition to the bloodlessness of this mode of operating, Mons. Poinsot claims for it two other advantages—the spontaneous retraction of the edges of the wound, rendering unnecessary the aid of assistants for this purpose, and giving a funnel-shaped opening down to the trachea; and the protection of the wounded surfaces from the contagion of diphtheria. Slight secondary hæmorrhage has followed this operation in several cases, but in no case has it been severe, yielding readily to simple treatment. Although the wound gapes widely at first, the resulting cicatrix contracts to a small size, and has not given rise to any unpleasant symptoms in any recorded case. This appears to be one of the most useful applications of this recent addition to the surgeon's armamentarium. It promises to change tracheotomy from an operation which is always anxious and often very trying into a safe and simple proceeding; and we may hope that it will, in this way, add to the value of the operation by leading to its more frequent and earlier adoption in obstructive diseases of the larynx.—*The Lancet.*

RAPID CURE OF ANEURISM OF THE ANTERIOR TIBIAL BY ESMARCH'S BANDAGE.

For the notes of this interesting case we are indebted to Mr. G. W. Rigden, house-surgeon, Tamton and Somerset Hospital.

A young agricultural labourer, aged twenty, was admitted into the hospital with the following history:—During the last week of August he wounded his right leg with a scythe. He lost a large quantity of blood at the time, but the wound healed after he had been in bed about a month. When he began to get about he noticed that his foot dropped on that side, and for this he came to the hospital for advice.

On admission, it was found that he could not raise his foot on the affected side, but there was no stiffness of the joint, the whole foot being perfectly flaccid. The cicatrix of the wound was noticed, about the middle of the outer side of the leg, and beneath this was found an ill-defined tumour, deep in the muscles of the leg, which exhibited a distinct pulsation synchronous with each beat of the heart, and on listening with a stethoscope a distinct bruit could be heard.

After he had been kept at rest in bed a few days, the tumour became much more defined; it was less in size, but the margin of it much more distinct; it was very deep and appeared about the

size of a small hen's egg. There could be no doubt it was a traumatic aneurism of the anterior tibial. It was resolved to attempt to cure it by means of Esmarch's bandage in the manner recommended by Mr. Thomas Smith in THE LANCET of May 26th, 1877.

On December 2nd, at 11.20 A.M., a flannel bandage was applied from the toes to the tumour, and a second bandage from the tumour to the middle of the thigh, leaving the tumour itself exposed. Esmarch's bandage was then applied with modern tightness from the toes to the tumour, and the patient made to stand out of bed, in order to fill the tumour well with blood. Esmarch's bandage was then applied from the tumour to the middle of the thigh, and the thick india-rubber tubing firmly fixed above it. The tumour itself being still exposed, it was noticed that the pulsation in it was quite arrested, and no bruit could be heard with the stethoscope. The patient was then directed to keep quiet in bed with his leg well raised on pillows. He did not complain of any pain till twelve o'clock (forty minutes), when he began to have the sensation of pins and needles in his foot; this pain had became so intolerable at 12.20 (one hour after the application of the bandage) that a horseshoe tourniquet was fixed firmly at the groin, and the india-rubber tubing and Esmarch's bandage removed, the flannel bandages being allowed to remain. It was noticed that though the colour returned to the limb, no pulsation could be felt either in the tumour or in the femoral artery. A dose of chloral hydrate was given, and the patient directed to keep quiet. At 3.30 P.M. a pad of lint was fixed by strapping on the line of the femoral, and the tourniquet slightly relaxed. It was further relaxed at 4.30 P.M., and removed altogether at 7 P.M. The patient was put on a milk and beef-tea diet, and directed not to move if he could possibly help it.

There has never been the slightest return either of impulse or bruit; the tumour has gradually become smaller till now it cannot be felt at all; the power of lifting the foot returned as the tumour diminished in size, and now, in less than three weeks, is almost natural. The patient will be discharged in a few days.—*The Lancet.*

PROSTATIC TUMOR REMOVED DURING LITHOTOMY.—Mr. Bryant exhibited specimens of prostatic tumours which he had removed successfully during lithotomy. The first specimen was from a man of sixty-seven, who was operated on in Guy's Hospital in January, 1875, after having suffered from symptoms of vesical calculus for eighteen months. The blunt gorget was used; the stone was caught, and found to be large; a resistance was felt, and discovered by the finger to be a prostatic tumour situated between the stone and the hinge of the forceps. The whole was removed, when the calculus proved to be one inch and a half, in diameter, and the tumour to consist of prostatic tissue and muscular fibre. There was no hæmorrhage, and recovery was perfect. The second specimen was removed from a gentleman of seventy years, who had suffered from vesical symptoms for four years, and was extremely ill. Lithotomy was performed; the gorget had to be used; and the stone, when seized, could not be extracted. A portion of the prostate was then ascertained to be in the way, when, by rotation of the forceps and pressure backwards on the tumour, the hinge of the instrument caught the growth, and both it and the calculus could be extracted. The patient was perfectly well in six weeks. The growth consisted of prostatic tissue. Mr. Bryant said that in both these cases the patients had been relieved of stone and of another cause of distressing symptoms by a single operation. Convalesence was not affected by the operation. In other words, benefit seemed to have followed the removal of prostatic tissue. It appeared to him that in a similar case the surgeon might follow his practice, or even search for the condition; but he would hardly suggest operation for the relief of symptoms due to enlarged third lobe of the prostate. The operation had first been mentioned by Sir William Ferguson thirty years ago.—*Med. Times and Gazette.*

THE COMING DUTIES OF THE ACCOUCHEUR.—Prof. Gaillard Thomas, lecturing on a case of neglected prolapsus uteri, makes (*New York Medical Record*, December 22) the following observation:—

"The time is not distant when confinement cases will be treated very differently from what they are at the present day. This is a subject of the utmost importance. There is the most urgent need of a radical change in the practice of the majority of the profession, and the time is ripe for the appearance of a stirring and able paper on 'The Proper Management of Natural Labour,' which will awaken medical men to a sense of their duty in obstetrical cases. The physician should be expected and required to visit his patient from time to time all through her pregnancy, in order to see that everything is progressing favourably for a successful delivery, and to remove, if possible, any condition (as albuminuria, for instance) which is likely to interfere with this; and I am fully convinced that it will not be long before the accoucheur who does not pursue this plan will be held culpable. Again, he will be held equally culpable if he discharge his patient at the ninth day, or at the end of a fortnight, without making a physical examination, to ascertain that the parts have sustained no injury from the strain and pressure of parturition, and that the process of restoration to the normal

condition is going on satisfactorily. A little attention paid at that time will often prevent the most serious consequences in the future. If the physician had made such an examination in this case, and had found the cervix lacerated, he might have waited a month, and then, ascertaining that trouble was resulting from it, he should have sewn it up, and also restored the perineal body which had given way. . . . All this could have been readily done in the second month after delivery, and it would certainly have been a great deal better to do it than to wait thirteen years before undertaking the operation. It is true that this woman has suffered comparatively little pain and inconvenience in consequence of the neglect of her physician, but this is a very rare exception to the general rule; and, as I said before, the time is not far distant when the medical man will be held responsible for allowing such a condition to continue without interfering to prevent the evil results so sure to follow from it."—*Med. Times and Gazette.*

THE EXCISION OF HARD CHANCRES.—Professor Auspitz, of Vienna (*Vierteljahrschrift fur Derm. und Syph.*, 1877), has excised the primary syphilitic induration, or hard chancre, in thirty-three cases, as first recommended by Hueter in 1867, with the following general results:—1. In a large number of the cases no further syphilitic symptoms appeared, although at the time of the operation there was almost invariably indolent enlargement of the inguinal glands. This fact Auspitz regards as a proof that the initial sclerosis is not a pathological result of a pre-existing general systemic infection, but a starting-point or an original depôt for the infective material by which syphilis is transmitted. 2. In those cases where no secondary induration appeared after excision in the seat of the former chancre, there were, as a rule, no further symptoms of syphilis. 3. In some cases excision was followed by secondary induration and a general outbreak of cutaneous and other syphilitic phenomena, but here the probability is that either the whole of the original chancre was not removed, or that the disease had spread too far along the neighbouring bloodvessels before excision was performed. 4. In four cases the hard chancre was preceded by a soft sore, and in none of these did general symptoms follow excision. 5. The operation can be recommended as a preservative measure against general infection where the induration has been of short duration, where no lymphatic glands are indurated but the inguinal glands, and no other syphilitic symptoms are to be detected; and where the chancre is favourably situated, and can be properly dressed and attended to after the operation. 6. Further exidence is required to shew whether excision exercises any influence on the duration or severity of the general syphilitic symptoms in those cases in which it fails to prevent their outbreak, but there are grounds for believing that it possibly may. On the whole, Professor Auspitz's results are extremely encouraging, and deserving of serious attention. "Prevention is better than cure" is an adage which is certainly applicable to the treatment of syphilis.—*Med. Times and Gazette.*

CÆSARIAN SECTION.—Dr. J. Braxton Hicks performed this operation at Guy's Hospital, upon a patient whose vagina was occupied by a scirrhous mass, which involved the rectum and recto-vaginal septum. The placenta was found beneath the line of incision, and the fœtal head at the fundus uteri. However the membranes were reached from the lower end of the uterine wound, the head seized, and brought out first. There was very little hæmorrhage. The uterus contracted firmly after the removal of the placenta. The uterine wound was brought together by interrupted silk sutures closely placed, and a large catheter retained in the uterus, passing through the vagina, to prevent accumulations and to facilitate injections in case of need. The child, slightly premature was living up to last account.—*Ibid.*

IMPACTED FRACTURE OF SHAFT OF FEMUR.—Mr. Bryant also showed this specimen. A man of eighty-three fell down area steps, and believed that he alighted on his right knee. It was found that the right limb was shortened four inches; the position of the foot was normal; and there was crepitus to be felt above the knee. The diagnosis made was fracture in the lower third of the femur, and a splint was applied. The man died three weeks after of uræmia; and, post-mortem, there was found suppuration of the kidneys. At the junction of the lower and middle thirds of the right femur there was extensive fracture, and the proximal portion was driven one inch into the distal portion of the bone, causing a second fracture of the lower fragment above the condyles. Mr. Bryant said that this was probably the only specimen on record of the kind; and that the peculiar impaction was perhaps due to the patient's having fallen on the distal end of the bone. The condition explained why extension failed to reduce the shortening; and it suggested the advisability of letting parts alone under such circumstances, rather than run further risk, including the danger of vertical fissure of the bone.—*Med. Times and Gazette*, Feby. 16th 1878.

ADAM'S OPERATION IN ANCHYLOSIS OF THE HIP.—This is the third of a series of cases in which Mr. Bryant performed Adam's operation for relief of anchylosis of the hip. The anchylosis resulted from disuse while suffering from necrosis of the tibia. The necrosed bone was removed Nov. 5, 1875, ten months after the accident that led to the

disease. The femur was divided on the 23rd of the same month. The following is from notes on the case taken by Mr. Poland:

"*November* 23.—Chloroform having been administered, a small incision, half an inch long, was made with a long tenotomy-knife above the great trochanter of the left side, through the soft parts down to the neck of the bone, and then with a saw the neck of the femur cut through, and the thigh straightened. The Sartorius muscle was divided at the anterior superior spine subcutaneously, and the small wounds covered with a pad of lint. A large outside splint, with foot and cross-piece, was applied, and a morphia injection given, which eased the pain, but he was a little sick after the operation." Both wounds did well. He complained of great pain in his back for a few days, but this soon wore off.

"*February* 10, 1876—He was sent down to Bognor. There was still a little discharge from the right leg.

"When at Bognor the wound over the tibia completely closed. He could walk well, the parts about the hip having firmly consolidated."—*The Lancet*, Nov. 17, 77. *Med. Record.*

EXCISION OF THE SPLEEN.—Another case of splenotomy has been put upon record by Mr. H. L. Browne. After all the dangers had been thoroughly explained to the patient, the operation was performed on Feb. 23, 1877, in the West Bromwich Hospital. There were no adhesions, nor was there any distinct pedicle. Four large arteries were met with, which were secured by double ligatures before division, and also their veins. There was no hemorrhage. The lad rallied very well from the chloroform, but five hours afterwards died suddenly. There was no hemorrhage after the operation. The tumor, which was found to be a simple hypertrophy of the spleen, was eighteen and a half pounds in weight.

No theory of the cause of the disease is offered. The lad had leucocythemia. There was no other glandular affections. The youth of the patient (20 years), the almost certainty of a splenic tumor being non-malignant, the absence of other disease, and the fact that the patient was dying, and would have died in a few days from the pressure alone on the viscera and blood-vessels by the weight of the tumor—these are some of the strongest reasons why the operation was and should be performed.—*The Lancet*, Sept. 1, 77. *Med. Record.*

TWO CASES OF STENOSIS OF THE TRICUSPID ORIFICE, WITH OBSERVATIONS.—By R. P. Howard, M.D. Montreal 1877.—This paper is reprinted from the Transactions of the Canada Medical Association for 1877. The first case of especial interest, having been under the author's observation for fifteen years. The patient had chorea when eight years of age, but never rheumatism; and during life the physical signs pointed to mitral and aortic disease, and, finally, tricuspid regurgitation, but the tricuspid stenosis was not diagnosed. Death occured from cardiac dropsy, and the right auricle was found "capable of holding a good sized orange," its muscular walls, which were fattily degenerated, being greatly thickened. The tricuspid orifice admitted the little finger to the first joint, the valve-cusps being united, and forming a fibrous septum, This contraction was greater than that of the mitral orifice, which was also funnel-shaped, and the aortic orifice was similarly stenosed from cohesion of the valve-cusps. The second instance is that of a heart in the McGill College Museum, and a figure is given in the paper showing the oval tricuspid orifice formed between united cusps. There was marked mitral stenosis in this case also, and the aortic valves were thickened. Dr. Howard notes the almost invariable association of tricuspid disease with affections of the other valves, and he contends against the idea that the lesion is of congenital origin.—*Lancet.*

SCARLATINA BY LETTER.—Under this heading the newspapers narrate a case in which scarlatina was undoubtedly communicated by letter, from an infected house to a previously healthy family. The children "had the envelope to play with," and took the disease. We have, in *The Lancet*, repeatedly called attention to this risk. It is satisfactory to know that a not uncommon, but too long overlooked, method of infection is at length beginning to be recognised. The danger which attends the practice of writing letters, and sending papers, books, and parcels, from sick rooms to disseminate the "germs of disease" is of no small magnitude. Probably paper, in its familiar forms, is as effective a carrier of morbific material as linen or wool. The notion of "disinfecting" books and letters is practically untenable. Such means of infection should be themselves destroyed. Circulating libraries are too often the circulating media of communicable disease.—*The Lancet.*

DIFFERENCES BETWEEN ANÆMIA AND CHLOROSIS.— Zimmermann, in *Ziemssen's Cyclopædia*, XVI., page 501, gives the following: 1. In chlorosis proper the change in the blood appears to be strictly limited to the red corpuscles, whereas in anæmia, other constituents of the blood, especially the albuminates of the plasma, are also modified. (2). In many respects the etiology of chlorosis is peculiar and obscure and its pathogeny does not admit of being traced, like that of ordinary anæmia, to causal factors with which we are familiar. (3). The striking effects of suitable treatment would oblige us, even in default of other reasons, to separate chlorosis clinically from other forms of anæmia.—*Clinic.*

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science

Issued Promptly on the First of each Month.

☞ Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John. N.B.; J. M. BALDWIN, 805 Broadway, New York, and BALLIERE, TINDALL & COX, 20 King William street, Strand, London, England.

TORONTO, APRIL 1, 1878.

RECIPROCITY IN MEDICAL REGISTRATION.

The next meeting of the British Medical Council takes place in May, and as the question of the registration of Colonial graduates, will probably come up, it is very desirable that some decision may be arrived at, by which all those who are registered and entitled to practice in Great Britain or any of her Colonies, may "*ipso facto*" be considered equally qualified to practice in either, on payment of the proper registration fees, and without further examination. The inconvenience of the present state of things, and its unsatisfactory results scarcely require to be urged. They were sufficiently illustrated by the action of the Board of Trade a year ago, and are experienced by all who have visited England for the purpose of obtaining diplomas, or of remaining to practice, in proof of which may be noticed the numerous letters on the subject from Foreign and Colonial graduates in the English medical journals, and the recent formation of a society at Birmingham, with the object of obtaining recognition of such degrees. The appointment of Dr. Gowan to the superintendency of the Toronto Lunatic Asylum a little over two years ago, is an instance of the inconvenience, working the opposite way, where a highly qualified and experienced English physician was legally incapable of practising here, because he declined to submit to examination by men whose equal he was in experience and professional acquirements.

The British Medical Council has already expressed its willingness to register Colonial degrees, but in a manner that only partially meets our wants, as the distinction that is made by inserting the Colonial degrees in a separate section of the Register, implies, that there is a difference in the nature of the training given here, or a doubt as to the sufficiency of the examinations to render us worthy to be associated with men holding British qualifications. It is not stated, moreover, whether such registration would entitle a man to hold office under the Local Government Board. If not, it would be of but little value, as it is a well known fact that the holding of a poor law appointment in country practices is almost essential to success in many cases. If, however, we ask for our graduates the privileges enjoyed in England by home graduates, we must at least be prepared to concede something in return. It seems that there is amongst our Ontario Medical Council a feeling of jealousy that makes them resent a man's going over to Great Britain and obtaining his qualifications there, rather than here. It is looked on as a slight to the College, and as an attempt to set it at defiance, and is punished by a refusal to register his British qualifications without further examination here, on the ostensible ground that these qualifications are conferred by irresponsible close corporations, instead of, as here, by a body chosen by the profession and responsible to it, for the proper performance of its duties.

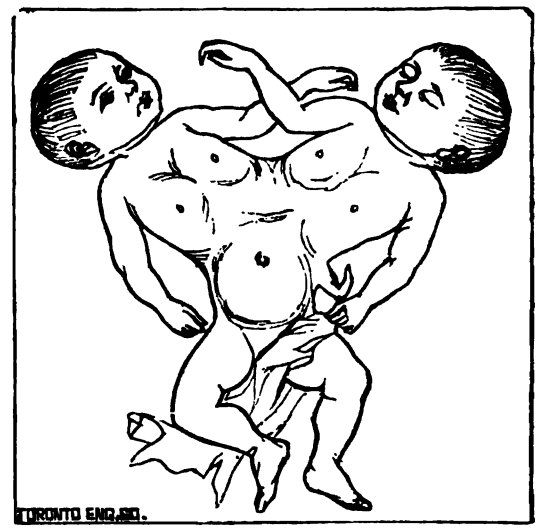
Surely this is a mistake. Desirable as it doubtless is, that there should be in Great Britain but one portal into the profession, yet there is no ground for assuming that the examinations there are imperfect, or slurred over in any way, while the practical advantages derived from the abundant clinical material and instruction in the old country hospitals, are so great that every encouragement should be offered to the student who desires to avail himself of them. The majority of Canadian students have but slender pecuniary resources, and these are frequently taxed to the uttermost in their efforts to benefit by the educational advantages of Great Britain, and to exhibit the proof of having done so, by acquiring the right to append to their names the various home professional titles. The objection entertained by the student who has spent time and money thus, to increase his already great expense by paying a further sum for examination in subjects he has already proved himself proficient in, should be attributed to this, its true cause, and not to any disrespect for the qualification conferred by the Ontario Medical Council. It would be more generous, and conduce to the advancement of the profession in Canada if he were met half-way, and the

same professional value accorded to his degree that it would obtain on the other side, i. e., entitling him to practice medicine, surgery, midwifery, any or all of them as the case might be; while if his qualification only extended to one of these, he should be allowed to submit himself to examination in the others at a reduced proportional fee. The same privilege should be granted to those who have pursued their studies entirely within the limits of the United Kingdom. The question of the diminution of the revenue of the Council ought not to be considered in this matter at all, and in point of fact it is not probable that the plan proposed would materially diminish it, for the number of those who go over yearly is very small, and would not be likely to be much increased by this concession. On the other hand against the small loss of revenue which might ensue, ought to be placed the advantage it is to the country to have its medical men possessed of the most extended experience and attainments possible; the spread of that "êsprit de côrps" that might be expected to result from the union of the profession throughout her Majesty's dominions into one body existing under the same conditions, and enjoying the same privileges, and which ought to distinguish medical men everywhere, instead of those of each Province being jealous of each other, and striving by local rules and regulations to prevent outsiders from competing with them. Lastly, the admission by Ontario of British graduates to registration on the terms here suggested, would open the way to according similar advantages in Great Britain to those who had obtained the imprimatur of the Ontario College.

It must be borne in mind that one great obstacle to the recognition of our diplomas by the British Medical Council is the existence of varied regulations in different Provinces. Melbourne, for example, seeks the same advantages for her graduates that we do for ours, and throws the same obstacles in the way of registering British diplomas. The end desired can only be obtained by the assimilation of regulations for qualification everywhere, and should the proposed conjoint scheme of examination for Great Britain be adopted at the next meeting of the British Medical Council it may be found advisable for us to modify our own regulations slightly, so as to bring them into conformity with those contained in it, if it be practicable to do so

WONDERFUL LUSUS NATURÆ.

There is at present in Montreal, one of the most remarkable and interesting specimens of abnormal genesis of which we have any record on this continent. It is in reality a case of monopelvian, twin female children. They were born on the 28th of January 1878, at the village of St. Benoit, Que. a midwife only officiating. The mother is a young woman about 20 years of age, of medium stature, mild expression, light complexion, and a good nurser. It is her second birth. The father is a tall man, of dark complexion, aged about 23; both parents are well formed, and no such freak of nature was ever before known in the family. We append the following wood-cut which gives but a faint idea of them as they really appear to the professional eye.



Looked upon as they lie in the cradle, they appear to be two distinct infants, with their heads lying in opposite directions, healthy and rather good looking. On exposing the lower parts, the two bodies are seen to blend in one, at the point of ordinary situation of the liver of one, and the spleen of the other. The heads, arms, thoracic organs, and apparently stomachs are distinct; but there is only one umbilicus, and apparently but one abdominal cavity, one pelvis, one sexual apparatus (well formed female), and two legs as in ordinary formation. The spines blend in one about the 12th dorsal vertebra and growing out of the left loin, near the pelvis is a rudimentary arm

(which has been taken to be a leg) having a humerus elbow, lower arm, and a partial hand terminating in one finger. This possesses power of motion, and opens and closes with the child's will. Passing the finger over the spine, it is found highly sensitive and easily disturbed. When nursing, the children lie in the mother's lap so as to be able to take each a breast and nurse at the same time, with the legs extended out in front of the mother, and the rudimentary arm lying closely pressed to the back and finding accommodation in the space between the mother's knees.

Looking at them, at first glance they appear as if a perfect child were on the left side, lying in a bent position with another child engrafted on its right side, and becoming blended into one below. They are now being exhibited in Montreal as a natural curiosity, and the fatigue entailed may prove disastrous to their health, and thus the father may find he has killed the "goose that lays the golden egg" by exhibiting them prematurely.

PREVENTION OF OBESITY.

The part which water plays in producing increase of adipose tissue in the human system can scarcely be over-estimated, for without a liberal supply of this important fluid it is impossible to become fat. A liberal supply of the carbonaceous elements of diet are supposed to induce obesity, but this would only produce derangement of the digestive organs without having its due effect in producing fat, unless accompanied by the needful supply of water, and it will be invariably found to be a fact that great water drinkers are prone to become fleshy. This is the fact with respect to both man and beast. In fattening animals the more water they can be induced to drink, as every farmer knows, the easier and more rapidly are they fattened, while observation proves that fat men and animals are always great drinkers of water or some of its solutions, and small eaters of solid food; on the contrary lean people and animals are small drinkers and great eaters.

Now applying these observations to the human system it will be readily understood that using the excessive quantity of carbonaceous food as is the custom of most persons, the additional chemical elements furnished by the water, at once facilitate the metamorphosis into fat in the system. And when unused for the purposes of combination or when its change is retarded by the presence of the small quantities of alochol present, as in lager beer, ale, &c., fat is deposited and the person becomes obese. It follows then that abstinence from water or rather from fluids, generally is the first requisite in the prevention of obesity, or the reduction of weight, when this is desirable. Mental and bodily activity are also unfavorable to the deposit of fat in the system. But, although lager beer drinkers and gourmands are liable to form fat, as do the servants on sugar plantations during the sugar season; yet it is well to remember that it is not necessary that people should be beer drinkers to become fat, and that the free imbibition of water is sufficient for the purpose.

HOSPITAL FOR INSANE, HALIFAX.

We have just received the Report of the Medical Superintendent of this asylum, for 1877, from which we take the following:—In hospital 1st of January 337; admitted during the year 94; discharged cured 48; relieved 7; died 25; remaining in hospital at end of year 351. This gives a mortality rate of 5.8 per cent, and a recovery rate of 51·06 on the admissions. The recovery rate is most satisfactory in connection with this institution and has been equally high for many years past. Dr. DeWolf has been connected with this asylum for the past 20 years, and we regret to learn that he has resigned the superintendency in consequence of some charge of "neglect as to measures to ensure cleanliness, and dishonesty in the administration of rations," brought against the management, as stated in the report of the committee of enquiry. Dr. DeWolf positively denies the former charge, and if the latter be true, the commissioners are to blame. But what Dr. DeWolf complains of most—and he certainly has good ground of complaint—is, that he has not had an opportunity "of appearing before the tribunal which condemned him." It can hardly be possible that the Government would perpetrate so glaring an act of unjustice as to condemn a man unheard. If so it must lose all claims to respect, and take the consequences of the reaction which will certainly be produced, by any injustice done to an old and faithful servant.

THE TORONTO GENERAL HOSPITAL.

The visitor at the Toronto General Hospital of a few years ago, will scarcely recognize in it the same institution either in external appearance or internal appointments of former years. The Board of Trustees and Medical Superintendent are to be congratulated upon the high state of efficiency to which the Hospital has been brought, for never before in the history of the institution has it been in such perfect working order. The scheme of amalgamation which is now being so energetically carried out will in a short time place this hospital in the front rank of institutions of the kind on this continent. The fever Hospital which is being erected, at a cost of about $20,000, to the west of the main building is now rapidly approaching completion and will be ready for occupation in a few weeks.

The new Burnside Lying-in-Hospital which, under the amalgamation project is being erected in the extreme north-western portion of the grounds at a cost of $11,000, is also near completion, and will be ready for occupation in the summer. It is a handsome white brick building, with Ohio stone dressings, and is in a style in keeping with the rest of the buildings. The Eye and Ear Infirmary to the east of the main building, is now about to be commenced. It will cost about $15,000. This building will be connected with the main building by a corridor—the Fever Hospital is of course entirly disconnected. All these buildings are of the most modern and improved style, and every attention has been paid to heating and ventilation that skill and forethought could suggest. The number of intern patients in the main building under treatment averages from 175 to 185, and the number of externs average from 20 to 30 per day. Owing to the increased facilities for clinical instruction which the Toronto General Hospital now affords, medical students are no longer attracted to other cities, because of superior hospital advantages. Regular daily clinics are given the year round by the medical officers of the staff, the majority of whom are connected with one or other of the medical schools.

This prosperous state of affairs is no doubt due to the able and judicious management of the board of trustees. They have boldly grappled with every difficulty, broken down all monopolies, and dealt out evenhanded justice to all; and so long as they hold the balance equally, there will be no jarring or want of harmony among the members of the medical staff. Another element of success is that the board of management has the entire confidence of the public, and subscriptions and substantial aid from private sources, and also from the Government are being received from time to time. Great credit is also due to the Medical Superintendent, Dr. O'Reilly, and his able assistants, for the neatness and cleanliness of the interior, and the good order and discipline everywhere manifested.

TORONTO ASYLUM REPORT.

This is a carefully prepared report and not a mere mass of dry figures as is too frequently the case. We have only time and space to notice a few prominent points. At the commencement of the year there were 631 patients in the asylum, and 232 were admitted during the year, making a total of 863 as against 956 in the previous year. This difference was owing to the transference of a large number of chronic and incurable cases to the Hamilton asylum. The number of patients at the close of the year was 671. The discharges during the year were 112; of these 75 were cured, 22 improved, and 15 unimproved. The number cured and improved is about 42 per cent. of the admissions during the year. There were 58 deaths during the year, making the rate of mortality equal to 6.66 per cent. on the total number of inmates.

There is still the cry of want of room, and it is sincerely to be hoped that the Government will secure increased accommodation. It is a crying shame that poor unfortunates of this class have to be sent to jail for want of proper accommodation in the asylum, and this at a time when medical treatment is of the utmost consequence, viz., at the outset of an attack. Dr. Clark alludes at considerable length to the alarming prevalence of an "enshrouded moral pestilence," in other words, self-abuse, as one of the most prolific causes of insanity. He suggests as a means of arresting this evil, in view of the improbability of any other means being adopted, that pamphlets should be issued on the subject and sent broadcast throughout the community. In discussing the question of restraint *vs.* non-restraint, in the management of the unruly, the Dr. very properly says:—Let it (restraint) be a final resort when moral suasion, or

it may be, gentle manual effort fails; but the practice that would allow a patient to injure himself or herself, or others rather than have exceptions to a praiseworthy sentiment, is a method neither distinguished by discretion nor judgment."

In the treatment of epilepsy, nitrite of amyl has been used in upwards of 25 cases with very good success. It was given in most of the cases in half-drop doses, three times a day, and it was observed that when it was omitted for a day or two the fits returned with their usual violence and frequency. On the whole, the experiments with this new remedy show that it is of considerable service, and worthy of a more extended trial.

MORTALITY OF TORONTO FOR 1877.—During the past year the city was notably free from disease; there were no epidemics, except a few temporary occurrences of scarlet fever and a few cases of diphtheria. The total number of deaths was 1,850, which represents an annual death rate of 26.42 per thousand, estimating the population at 70,000. The annual death rate for 1876 was 28 per thousand, showing a decrease of 1.58 per thousand for 1877. This is attributable no doubt, in some measure, to the increased drainage of the city. The diseases which caused the greatest number of deaths were—debility, 187; consumption, 173; diarrhœa, 168; inflammations, 154; scarlet fever, 85; brain diseases, 81; heart disease, 57; bronchitis, 53; convulsions, 46; typhoid fever, 41; croup, 26; whooping cough, 7, &c. It is to be regretted that the large number of 488 were unclassified, and it is to be hoped that in future more care will be taken in this matter by medical men and others, when certifying to the cause of death.

HYDROBROMIC ACID AND SEDATIVE DOSES OF QUININE.—Dr. Boyd of Ogdensburg, N. Y., has been using hydrobromic acid and sedative doses of quinine for the past six months in the treatment of typhoid fever, and has come to the conclusion that it is superior to any other treatment. He generally commences by giving from v. to viij. grs. of hydrarg. chlor. mit. After the bowels have moved two or three times, he commences with the acid and quinine, i. e. if the temperature is high—say 102 or 103—by giving a tablespoonful of the following medicine: Acid. Hydrobromic, ℥ iss., Quiniæ Sulph. ℥ i., Aquæ ℥ iss. Of this mixture he gives one tablespoonful every two hours until four doses are taken; if the temperature is not lowered from 12 to 14 hours after administering the first dose, he generally repeats the doses as above, until the temperature falls. He has given on an average from 20 to 30 grains a day, without the patient complaining of that abominable ringing noise in the ears, and very seldom administers opiates. Headache generally ceases after the patient is fully under the influence of the medicine, and does not return with proper diet and hygiene.

Hydrobromic acid may be prepared extemporaneously as follows:

℞ Pot. Bromidi ℥ x.
Acid Tartaric ℥ xij.
Aquæ ℥ xl.

Mix, and allow it to stand until precipitation ceases. The results of the reaction are the formation of bitartrate of potassium (cream of tartar), which is nearly insoluble, and sufficiently pure hydrobromic acid diluted with water, each fluid drachm of which contains ten grains of bromine.

GOITRE TREATED BY IODINE INJECTIONS.—In the *Journal de Medicine* for November an article will be found in which the above named method of treating goitre is highly recommended. It is known as the method of Luton. By this method Dr. Luton has frequently produced cures which were rebellious to medical treatment. It consists in injecting into the centre of the tumor from 15 to 40 drops of tincture of iodine, officinal strength. In some instances morphine is added to relieve pain and irritation. The injections may be repeated every ten days. Luton met with but one case in which it failed—a vascular goitre. Morell McKenzie who has tested the remedy on a large scale, cured 59 out of 73 cases, diminished the size in 9, got no results in 3, and 2 patients gave up treatment.

THE ANATOMIST.—This is an etching of a picture of the same name exhibited at the centennial in Philadelphia, which attracted considerable attention. It is printed on white paper 12½ x 15 inches, and would make a very suitable picture for a physician's office. It may be had by addressing the LANCET office. Price $1.

MILK OF MAGNESIA.—This preparation only requires to be better known to be more fully appreciated by the profession. It is a perfect hydrate of magnesia, and not as many suppose, calcined magnesia triturated and suspended in mucilage. When examined by the microscope it presents a uniform cloudiness but no particles of magnesia are to be seen. It readily mixes with water, and may be given alone or in combination with any other remedy which is not incompatible with magnesia. It has a perfectly smooth, palatable and milk-like taste and is one of the best antacids whether for adults or children. In the constipation of infants it is a most useful remedy. For acidity of the stomach, either in adults or children, there is nothing better; it is easily administered and very efficacious. Those who choose to test it will not be disappointed in the results.

THE NEW ANTISEPTIC THYMOL.—The new antiseptic thymol bids fair to entirely supersede carbolic acid—possessing as it does superior antiseptic properties, and being perfectly innocuous. It is the essential ingredient of oil of thyme, prepared by treating it with a strong alkaline solution, or by distilling the seeds of *Phychotis ajowan*, an East Indian plant. Solutions containing 1 part thymol to 1000 will completely arrest saccharine fermentation, and only small quantities are necessary to check decomposition. It is now being used in Germany instead of carbolic acid in the application of Lister's antiseptic dressings, with marked success. It is only as an external antiseptic that thymol is recommended; its internal use has not answered the expectations which were formed of it.

BELMONT RETREAT.—This most excellent private Hospital for the Insane, has provided a separate department for the treatment of inebriates. It is situated in one of the most beautiful and picturesque spots in the neighborhood of the city of Quebec. The extensive grounds surrounding it are most beautifully laid out, the building is well appointed, and every care and attention is bestowed on patients of all grades and classes, by the medical superintendent Dr. Wakeham, who has had great experience in the treatment of such cases. Among the class of inebriates the cures have aver aged about 75 per cent. It is the only institution of the kind in Canada, and is deserving of the consideration of the profession.

THE LATE DR. HODDER.—At a meeting of the Medical and Surgical society of Montreal, held recently, resolutions were passed expressing regret at the death of the late Dr. Hodder, in whom the medical profession has lost one of its most distinguished practitioners, one of the ablest teachers, and one of the most honorable members.

The following resolution has also been sent to the students of Trinity Medical school by the McGill students medical society:

Resolved,—That having heard with deep regret of the death of Dr. Hodder, late Dean of the Trinity Medical School, whose eminent services in the cause of medical science and medical education are so well known in this country, we do express our sincerest sympathy in your loss, and with the family of the deceased in their bereavement.

Prof. Osler, *Chairman.* L. D. Mignault, *Secretary.*

LACTOPEPTINE.—This preparation, which is a composition of pepsine, pancreatine, diastase or vegetable ptyaline, lactic and hydrochloric acid, and sugar of milk, is acquiring a great reputation both in England and America, in the treatment of many forms of dyspepsia, and wasting diseases of children. We have used it in several cases with remarkably beneficial results, and we feel certain the profession will not be disappointed in its effects. It is also an excellent remedy in gastritis, vomiting of pregnancy, dysentery, and diarrhœa of children. Pepsine is undoubtedly a valuable remedy in many forms of dyspepsia, but it does not seem to meet all the indications fulfilled by lactopeptine.

HEALTH REPORT CITY OF NEW YORK.—We have been favoured through the kindness of Dr. Nagle with a copy of the City Record containing the vital statistics of the City of New York, for 1877 from which we glean the following. There were 26,203 deaths (13,624 males and 12,579 females) during the year just past, which represents an annual death-rate of 24.50 per 1,000, the estimated population being 1,069,362. Among the diseases which caused the greatest number of deaths, may be mentioned, zymotic diseases 8,042; phthisis pulmonalis, 4,046; diarrhœal diseases, 3,557; nervous diseases, 2,378; pneumonia, 2,148; Bright's disease, 1,139; bronchitis, 1,033; scarlatina, 983; diphtheria, 951; croup, 472; whooping-cough, 440.

Of the total number of deaths 7,419 died before they reached the age of 1 year; 2,495 before the end of 2nd year; 1,133 before the 3rd year; 736 before the 4th, and 524 before the end of the 5th year, or a total of 12,307 before the end of the 5th year. Of those who reached 100 years and upwards there were 21; 15 females and 6 males—a circumstance which has been frequently observed, viz. that more females than males reach this great age.

The number of suicides during the year was 148; 123 males, and 25 females. The report says the most "popular agents resorted to for self-destruction were pistols" of which there were 49; hanging 20; poisons 47, of the latter paris green caused 15.

The total number of births for the year was 25,569—13,074 males and 12,495 females; or 634 less than the number of deaths.

APPOINTMENT.—Dr. N. H. Beemer has been appointed assistant physician to the Asylum for the Insane, London. Prior to his leaving Wyoming he was made the recipient of an address and presentation of several articles of silver plate, by a number of his friends as a token of their regard and esteem. The Dr. carries with him the good-wishes of a large number of friends and acquaintances.

REMOVALS.—Dr. C. W. Covernton, formerly of Simcoe, Ont., has removed to this city. His office is on the corner of Church and Queen sts., in the house formerly occupied by Dr. Rosebrugh. Dr. McDonald, of Guelph, is also about to remove to Toronto, having rented the premises occupied by the late Dr. Hodder.

Dr. Stevenson, formerly of L'Orignal, Ont., has removed to Montreal. He was entertained at a public dinner by his friends in and around L'Orignal, prior to his leaving. His Honor Judge Daniell presided, and a pleasant evening was spent by all present, and one long to be remembered.

The death of Dr. Blundell, of London, at the age of 87 years, is announced in the British medical press of a late date. Also that of Dr. Fleetwood Churchill, of Dublin, in the 70th year of his age.

The death of Dr. L. P. Yandell, of Louisville, Ky., in the 73rd year of his age, is announced.

Reports of Societies.

MICHIGAN STATE BOARD OF HEALTH.

The regular quarterly meeting of this Board was held at Lansing, January 8, 1878. Dr. Kedzie, President, gave a brief statement of some interesting experiments which he had recently made in relation to the permeability of walls and clothing, and the relation of these to the healthful condition of houses and clothing.

Leroy Parker read a report on a proposed amendment to a law requiring the transmission by the county clerks to the secretary of state, of the names and postoffice addresses of coroners as well as those of other county officers now reported. The proposed amendment will enable the state department and the secretary of the state board of health to communicate with these officers, and to learn from them the number of sudden and violent deaths, and the causes of same, with a view to remove the causes when possible. Mr. Parker stated that he had been in correspondence with the authorities of Massachusetts in regard to the recently amended laws of that state relative to coroners and coroners juries, which seem to be much better than the law in this State, He also read a report pointing out the fact that section 6852 of the compiled laws of 1871 makes it the duty of supervisors to prosecute householders and physicians for not giving notice of cases of diseases which endanger the public health. The Secretary reported that circulars had been sent to correspondents, giving details of plan for making weekly reports of diseases; also blanks for the annual reports of 1,224 clerks of local boards of health and 1,102 health officers throughout the State; blanks were also issued to meteorological observers for their monthly reports; the names and addresses of 800 health officers of townships, 28 health officers of cities, and 67 health officers of villages have been received; and six or eight documents were sent to each health officer so reported. Most of these health officers have been appointed because of the past action of this Board. Many of them are physicians.

Dr. Baker presented a bill drawn by Dr. Folsom of the Massachusetts state board of health, to prevent the pollution of streams by sewers, slaughter-houses, manufactories, etc. The Secretary stated

that diphtheria had been more prevalent than usual in this and other states, and suggested that the board issue a circular on the subject. Dr. Hitchcock was requested to prepare such circular. The causes of diphtheria were thoroughly discussed, and the opinion seemed to prevail that sewer gas, dampness, and mould had much to do in causing it, although it is a contagious disease.

Dr. Kedzie made a brief report, giving an account of experiments and tests for the detection of lead in tin utensils in common use, having examined quite a number of specimens. He found about three-fourths of all the specimens examined contained lead in considerable amount. These examinations were brought about by a communication from Dr. Edward Dorsch, of Monroe, Mich., which had been referred to Dr. Kedzie as committee on Prisons, etc. Dr. Dorsch detailed some cases of lead poisoning from the use of tin utensils. The test which Dr. Kedzie gave for this adulteration is quite simple. Place a drop of nitric acid on the tin to be tested, and evaporate to dryness; then add a drop of iodide of potassium. If lead is present, there will be a yellow coloration. If it is not present the spot will remain white.

A communication was received from the local board of health in the township of Minden, Sanilac county, stating their action for preventing the spread of glanders by killing and burying a horse affected with that disease, and that an action for damages had been commenced by the owner of the horse against the individual members of the board.

UNION MEDICAL ASSOCIATION.—At a meeting of the "Union Medical Association" held at Mount Forest on the 15th of February, it was unanimously resolved:—"That it is the opinion of this association that the principles of contract prices with families, secret societies, clubs, or railway companies, is unjust to the profession at large, and has a tendency to lessen the respect due us from the community, and also to lessen the estimation in which our services should be held by the public."

Also:—"That the charges for office practice, advice, &c., should range from $1.00 to $400, this being only an equivalent to the charges made by other professional men for less important services."

Moved that a copy of these resolutions be sent to the CANADA LANCET for publication.

THOS. KIERNAN, M.D.,
Secretary.

MEDICAL ASSOCIATION, COUNTY OF OXFORD.—On Thursday, the 31st Jan., a large number of the medical men of the County of Oxford met in the Mechanics' Institute, Woodstock, for the purpose of forming a medical society for the county. The meeting having been called to order, Dr. Bowers in the chair, the minutes of two preliminary meetings were read and confirmed. The following officers were then elected for the ensuing year:—President, Dr. John Turquand, Woodstock; 1st Vice-President, Dr. Bowers, Ingersoll; 2nd Vice-President, Dr. Massecar, Tilsonburg; Secretary, Dr. A. H. S. Hill, Woodstock; Treasurer, Dr. T. Millman, Woodstock.

Dr. H. McKay, of Woodstock, read an interesting paper on "Maternal Impressions" which, after having been discussed, was requested to be published in the CANADA LANCET. The meeting adjourned to meet in Ingersoll, on the second Thursday in April.

COUNCIL EXAMINATIONS.—The professional examination of the College Physicians and Surgeons of Ontario will commence on the 29th inst. The matriculation examination will take place on the 23rd and 24th inst.

CORONERS.—A. McKay, M. D., of Ingersoll, to be an Associate Coroner for the Co. of Oxford.

J. G. Davidson, M. D., of West Flamboro', to be an Associate Coroner for the Co. of Wentworth.

John J. Farley, M. D., of Belleville, to be an Associate Coroner for the Co. of Hastings.

The death of Prof. Wm. Stokes of Dublin, is announced.

Births and Deaths.

At Glanford, on the 10th Feb., the wife of Dr. Farewell, of a son.

In Toronto, on 1st March, the wife of A. De La Haye, M.D., of a son.

At Tavistock, on the 16th of January, John Adams, M.D., in the 36th year of his age.

In Montreal, on the 27th Feb., Dr. Duhamel in the 68th year of his age.

In Belleville, on the 23rd ult., James Lister, M.D., in the 67th year of his age.

* *The charge for notice of Births, Marriages and Deaths, is fifty cents, which should be forwarded in postage stamps, with the communication.*

THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

VOL. X. TORONTO, MAY 1ST, 1878. NO. 9.

Original Communications.

REMARKS ON OVARIOTOMY.

WITH AN APPENDIX.

CONTAINING THE HISTORY OF SEVERAL TYPICAL CASES MET WITH IN PRACTICE.*

BY J. W. ROSEBRUGH, M.D.,

PRESIDENT OF THE MEDICAL FACULTY OF THE HAMILTON CITY HOSPITAL; LATE PRESIDENT OF THE HAMILTON MEDICAL AND SURGICAL SOCIETY &C.

(Continued from page 232.)

CLEANSING THE PERITONEAL CAVITY.

Before closing the external incision the opposite ovary must be examined, and if cystic degeneration have commenced there, the ovary should be removed and the peritoneal cavity thoroughly cleansed; carelessness at this stage may jeopardize the result of the operation, as every drop of fluid or particle of *débris* remaining is liable to decompose. After the hemorrhage† has ceased and all coagula been removed, the abdominal parietes, the intestines, and particularly the pelvic cavity must be carefully and thoroughly sponged, with new, soft sponges frequently squeezed out of warm, slightly carbolized water.

DRAINAGE.

The propriety of inserting a drainage-tube into the pelvic cavity before closing the incision, in all cases where decomposition and septicæmia are apprehended, is a question still *sub judice*. By reference to the appendix it will be found that in several instances there recorded, the drainage-tube was thus inserted. In each of these cases during the first and second days, a large quantity of reddish serum escaped around the tube and pedicle, saturating the dressings and folded sheets underneath the patient; threatening symptoms also appeared, but so soon as a small quantity of pus and *débris* were withdrawn through the tube, the pulse and temperature immediately fell, and convalescence was progressive thereafter.

I was induced to make use of the drainage-tube from observing its beneficial operation in New York, while on a visit to that city, in 1873. By kind invitation of Prof. Thomas, I enjoyed the privilege of seeing that gentleman perform ovariotomy, and insert the glass drainage-tube; and subsequently by invitation of Dr. Marion Sims, I had the pleasure of visiting the wards of The Women's Hospital, and assisting him in washing out the pelvic cavity of one of his ovariotomy patients. In this case there was not only a tube through the abdominal wound, reaching down into Douglas's cul-de-sac, but also another tube passing up through the fornix vaginæ into the same pouch. Through the upper tube a disinfectant fluid was gently and slowly injected, which came away through the lower one, bringing a quantity of pus with it. The injection was thus continued until the fluid returned free from pus. The patient had the hectic-flush, and, to me appeared very low indeed. Regarding, at that time, such a condition hopeless, I remarked to Dr. Sims, as we left the ward, "that poor woman is near her end," He placidly replied, "She! no indeed, that woman is now convalescing nicely."

The importance of this step in the after-treatment of ovariotomy, justifies, even at the risk of being considered tedious, the following summary of Prof. Thomas's published views thereon:

"No one familiar with ovariotomy," he remarks, "will to-day doubt the assertion that the two factors which prove most fatal after it, septicæmia and peritonitis, are both in great degree due to the retention of putrescent materials within the peritoneal cavity. These materials may have escaped from the cyst during or before the operation, or may consist of blood or serum oozing from vessels while the operation proceeds, or some hours after

*Read by title at the meeting of the Canada Medical Association held in Montreal, 12th and 13th Sept., 1877.

† "I have had two cases; one complicated with pregnancy, was attended with considerable hemorrhage. This I checked by the application of flannels dipped in hot water. In such cases I can recommend hot water." Dr. Theophilus Parvin. See *Transactions of International Medical Congress, Philadelphia.*

"I have also seen the per-chloride of iron used to sponge bleeding points after the sundering of strong adhesions, and without any of those formidable results which some writers attribute to its passage through the Fallopian tubes after inter-uterine injections." Dr. Robert Barnes. *Transactions I. M. Congress, Phila.*

it has ended, or may arise from the emptying of pus into the peritoneum from inflammatory action. The importance of not only preventing the entrance of such elements into the peritoneum, and of removing them before closing the abdominal opening; but also of giving them free vent during the period of convalescence, has attracted the attention of many ovariotomists. It is my uniform habit to insert a glass drainage tube eight inches long, and varying in diameter from half to three-quarters of an inch, just above the pedicle and into the depths of Douglas's pouch, in every case except where there is absolutely no fluid left in the peritoneum. Should no fluid be left in the abdominal cavity, this tube should not be inserted, or if the operator be in doubt it should be placed in position and kept tightly corked. If fluid accumulation exist, or its occurrence be rendered probable by slight oozing from broken adhesions, the tube should be left uncorked, that serum and blood may drain away. If no increase of temperature mark the occurrence of septic absorption, nothing more is necessary than to keep this in place until all danger has passed away. Should septicæmia show itself, a gum-elastic catheter cut off near its end should be inserted as far as possible, the glass tube drawn up for an inch, and a stream of warm water containing one drachm of chloride of sodium and sixteen grains of the crystals of carbolic acid to the pint, gently injected by means of a Davidson's, or fountain syringe. No force whatever should be employed, but a free supply of water should be thrown in, until the return current come forth clear. When the temperature or pulse rises, and the other symptoms of septicæmia develop, such an injection should be practised once in eight hours. But without the tube is left from the time of the operation, it is difficult and sometimes impossible to reach the most dependent part of the peritoneum. In no instance have I seen evil result from this course, and hence I urge its employment."

"Septicæmia, which I believe will in time be admitted to be the most frequent cause of death after ovariotomy, is, when once fully established, a most dangerous state. It is ushered in by dizziness; excessive muscular prostration; anorexia; great pallor; high temperature; small, rapid, and very weak pulse; sometimes a low delirium; dry tongue; and a sweetish odor of the breath. It is probably this condition which is so often alluded to as a 'typhoid state' after operations, and one cannot but suspect that many, if not most, of those cases quoted in Dr. Clay's tables as shock or collapse, occurring as late as the fifth, sixth, seventh, and tenth days, were really instances of this affection. The development of peritonitis and septicæmia should be carefully looked for. All the vital and physical signs which mark them should be constantly investigated, and their inception be met by appropriate therapeutic means. Septicæmia being the result, first, of the decomposition, and second, of the absorption, of fluids in the peritoneum, is not likely to occur for several days, but it may take place in two or three weeks after the operation. If at any time the temperature should gradually or suddenly advance to 103°, 104°, or 105°, except just as the patient rallies from the immediate effects of anæsthesia and operation, fears should be entertained that peritonitis or septicæmia is developing. If it occur within four days after operation, it is likely to be the former. If after that time, the probabilities are greatly in favour of the latter. The pulse will usually become rapid at the same time whichever morbid condition is developing, and it must not be forgotten that the two are often combined. Let no one suppose that septicæmia once established becomes irremediable. Experience disproves this; it is the prolongation of exposure to absorption of septic elements that constitutes the great danger of the condition. This method of meeting in an efficient and satisfactory manner, the most fruitful source of danger after ovariotomy, I regard as second in importance to no other improvement which has been introduced since the discovery of the operation itself. It emanated from Dr. E. R. Peaslee, and has even now, I think, not assumed its legitimate position in the scale of importance."

This practice has not been very warmly accepted in Great Britain. English surgeons, proverbial for their slowness to adopt any new recommendation, have practised drainage only in cases regarded as desperate, or likely to prove such. On the Continent, however, it has been received with considerable enthusiasm, especially by the thoughtful German. But it is due to Prof. Carl Schroeder, to say, that he doubts the utility of resorting to the use of the drainage-tube in many cases where it is now used. In a recent article upon this subject he remarks:

"Let me once more state my views precisely, that the exudation after ovariotomy is not in itself the cause of the septicæmia, but is on the contrary perfectly harmless unless it decompose; but that decomposition only occurs after infection, and that consequently the important point is not the removal of the exudation, but the avoidance of the infection. I should therefore decide upon drainage during the operation, only in case I believed —a state of things which of course should not happen—that the patient had become infected, or, in case decomposing masses from some suppurating cyst, e. g., had found their way into the abdominal cavity. Drainage of the abdominal cavity assumes a very different position as a therapeutic measure, against a septic peritonitis which already exists. For, although the exudation be neither the original

cause nor the only symptom of the septic condition, it must still be conceded that its removal is highly desirable. It is true, this is *then* difficult to accomplish."

CLOSING THE ABDOMINAL WOUND.

This is generally effected with both deep and superficial sutures. Almost every variety of suture material has been employed for this purpose. The result of the operation, however, does not appear to depend upon the kind chosen. Most operators prefer silver wire, but Spencer Wells, and some others, nearly always employ Chinese silk. As the deep sutures are placed about an inch apart, the number to be used will depend, of course, upon the length of the incision; when the drainage-tube is inserted, and the pedicle is brought outside, they should be placed between the last stitch, and the last but one. The threads should be about eighteen inches in length, with a long, straight needle affixed to either end. Each needle is passed from within outwards, including a narrow margin of the peritoneal membrane, through the entire thickness of the abdominal walls, emerging at a point about three-quarters of an inch from the edge. All the deep sutures should thus be inserted before any are tied. The wound is now examined and if any fresh oozing of blood have taken place, this must be sponged away. An assistant now, with one hand on either side of the wound, bulges up, as it were, the redundant walls, while the stitches are being tied or twisted. Then in order to secure a nicer coaptation of the edges of the wound, superficial sutures are placed between the deep ones, which include only the skin and areolar tissue. All experienced operators agree in the advisability of including the peritoneum within the stitch, as it is found when the two edges are thus brought together they unite quickly by first intention; and this is desiderated in order that if suppuration take place outside, pus and other septic fluid may be prevented entering the peritoneal cavity.

The wound should then be covered with dry lint, or lint soaked in carbolized oil; over this and the whole abdomen should be placed a thick pad of dry cotton-wool, and several folded napkins, while broad strips of adhesive plaster should be passed nearly around the body, to support the abdomen in case of vomiting. Lastly a wide flannel bandage should secure the whole. The patient should now be placed in a comfortable bed, between blankets, and warmth for a time, even in hot weather, should be applied to her feet. The room is then darkened and the patient left quietly alone with her nurse.

THE AFTER-TREATMENT.

As this is a matter of the greatest importance, the operator must, himself, give particular attention to the minutest details of the after-treatment. He should secure the assistance of a medical friend to supervise the case in his temporary absence, and a competent nurse must be in constant attendance night and day. The patient must be kept quiet, at rest, and free from pain. To accomplish this, an opiate should be administered hypodermically, or per rectum. To prevent vomiting a little ice may be allowed, but no food or drink. If the powers of life seem to be flagging a little brandy and iced water must be given by the mouth, or an enema of milk and brandy. The room must be kept comfortably warm, at an even temperature, but well ventilated. This can be easily effected by a little fire in the grate—the best of all ventilators for a sick room,—or a gas jet can be kept burning in the fire place. The bladder must be emptied by a catheter every six or eight hours; the bowels should be kept constipated seven or eight days, but in case the intestines become distended with gas, they may be unloaded by a simple enema of warm water, as early as the fifth day.

Should vomiting persist after the effects of the anæsthetic have passed away neither food nor drink should be allowed by the mouth,—absolutely nothing, excepting ice to suck, and perhaps a desertspoonful of lime-water and milk, in equal parts, at stated intervals. Life must be sustained by rectal alimentation.* Enemata of nutritive materials already prepared for assimilation, as beef-essence, beef-tea, mutton, oyster or chicken-broth, or egg beaten in milk, may be administered every

*That life can be sustained with nutritive injections, by the rectum, is proven in cases 4 and 5 of the appendix. It is only within the past few years that the importance of this means of sustaining nutrition has been recognized by the profession. Of late, recourse is more frequently had to this method of nourishing the patient, not only in persistent vomiting after ovariotomy, but also in the various diseases in which food cannot be swallowed, nor digested by the stomach; and recently cases have been reported in which life had been sustained, by this means, during periods varying from three months, to three, and even five years. The question remains to be determined: whether the nutritive material, thus administered, is digested, or merely absorbed,

three or four hours, in quantities of about four ounce sat a time. Brandy and medicines, when necessary, may be added to the injections. The nutritive material should be strained and warmed previous to being administered, after which, the anus must be supported for a time by firm pressure with a napkin. After three or four days, when all tendency to vomiting has ceased, or as soon as the stomach begins to crave food, small quantities of light nourishment may be tried, A spoonful of milk, beef-tea, or oyster broth, may be given at frequent intervals, and if such nutriment agree with the stomach, other articles of similar diet, and small portions of solid food can be permitted.

If the patient appear to be doing well, as indicated by the general symptoms—pulse, temperature, respiration, and freedom from pain—the wound need not be examined until the third or fourth day, when it should be cleansed and dressed with fresh materials. Should suppuration be then commencing in any part of the wound, or arouud the pedicle, this must be carefully sponged twice or thrice a day, after which, the wound is each time dressed with lint soaked with carbolic oil. The upper part of the incision usually unites immediately by first intention, and the whole wound in four or five days; but the sutures are not removed until the seventh or eighth, unless some of them become a source of irritation. When the clamp has been employed, it is left undisturbed until it become loose and ready to be removed without any traction; the time varies with the thickness of the pedicle, but it usually falls off about the eighth day.

After the sutures and clamp have been removed, the abdomen must be supported by adhesive plaster, pads of cotton wool and an abdominal bandage. Even when the patient leaves for home, she should be enjoined to continue the support by the elastic bandage, corsets or some other abdominal supporter.

SHOCK.

Occasionally, however, ovariotomy cases do not get on so favorably as above indicated. It not unfrequently happens that the nervous prostration we are accustomed to speak of as exhaustion, shock, or collapse, continues after the usual time expected from the effects of anæsthesia and the operation. The patient does not rally, but gradually sinks in spite of our best endeavours to revive her failing powers. With this depression of the vital forces most of us are familiar, as occurring after capital surgical operations, and railway and other severe accidents. In reference to this condition, Dr. Barnes makes the following original and pertinent observations: "A considerable "proportion of all the deaths, I am convinced, "occurs from *shock*. Recovery from this is greatly "a question of individual power of endurance. "We can hardly foretell what this power is in any "particular case. Women recover from the sev- "erest operations attended by all the complica- "tions considered the most formidable; others "sink after the easiest and simplest operations. "Women comparatively robust, succumb, whilst "the apparently fragile recover. In many cases "the unexpected result is not due, at least appre- "ciably, to difference in skill.

"It can only be referred to difference in innate "power of resistance. This is an unknown quan- "tity, and is the chief cause of the uncertainty "which surrounds the operation. No doubt the "shock can be lessened by care and skill during "the operation, and the patient can be to some "extent supported through it."

Vigilant supervision and good management by the operator, personally, at this critical time, may succeed in reviving the sinking powers. Warmth, even in hot weather, must be kept constantly to the feet, legs, axillæ and cardiac region. When the stomach will retain stimulants, iced brandy or iced champagne, can be given by the mouth. But, when obstinate vomiting persists, the stimulants must be administered per rectum; and if necessary, ammonia hypodermically. The patient must be kept quiet on her back, and free from pain by morphine subcutaneously, or laudanum added to the enemata. In other desperate cases, when the patient does not sink from exhaustion, we scarcely expect she will survive the secondary dangers of hemorrhage, peritonitis and septicæmia.

HEMORRHAGE.

Should internal hemorrhage occur, indicated by progressive faintness, and a feeble, frequent pulse, the wound must be re-opened, the bleeding vessel secured, and the peritoneal cavity again cleansed. This appears a desperate undertaking, but the condition is an extreme one, as the patient, if left alone, will bleed to death. The above procedure offers the only hope of arresting the hemorrhage. During all this time, the operator must be on the constant watch for symptoms of

PERITONITIS.

THOMAS says: "The evils which are chiefly to be feared as sequels of the operation are, within the first twenty-four hours, hemorrhage; from second to fourth day, peritonitis; from completion of operation to third or fourth day, nervous prostration; and from 4th to 14th day, septicæmia."

WELLS says: "After ovariotomy, the most frequent cause of death is peritonitis, or some form of fever or blood-poisoning, so often associated with peritonitis."

BARNES says: "A more serious form of peritonitis is one that seems analogous to the puerperal form. Here there is commonly septicæmia, or inflammation is propagated from the seat of the pedicle, in which some unhealthy action is going on. * * Septicæmia may occur, although not commonly without much peritonitis. The symptoms then are very similar to those of septicæmic puerperal fever, and should be treated in a similar manner."

FEVER.

Very recently, Mr. J. Knowsley Thornton, of London, read a paper before the *Royal Medical and Chirurgical Society*, asserting that there is a *fever* following ovariotomy. For many of his data he was indebted to Mr. Wells, whom he had assisted in the greater number of his last 300 operations. He *believed there was a simple fever distinct from that caused by peritonitis* or *septicæmia*, but liable to lead to serious lesions in important organs, if not checked; attributed this form of fever chiefly to the sudden increase in the volume of blood circulating in the body after the removal of the large circulating area contained in the tumor; and indicated the various organs which might suffer, drawing special attention to the brain as receiving a large blood-supply. Mr. Wells, who was present, coincided with Mr. Thornton, and said he had noticed that the chief cause of death after ovariotomy, was not peritonitis so much as fever.

This new theory, sustained by the authority of Mr. Wells, must, I presume, be accepted; and *fever*—pyæmic fever—added to the catalogue of sequelæ following ovariotomy. This condition, separately, or in conjunction with peritonitis, would certainly make the symptoms, as suggested by Barnes, analogous to those heretofore known as "puerperal fever." But this makes "confusion worse confounded," as the great discussion of the Obstetrical Society, of London, in 1875, decided, if it decided anything, that there is no such disease as puerperal fever, *per se*. This opens a wide field for discussion which we cannot here enter. The practical question which concerns the ovariotomist, is: are the sequelæ following ovariotomy analogous to those following parturition, be they, fever, peritonitis, pyæmia, septicæmia, or ichorrhæmia? We must, I fear, leave these questions to be settled by investigators having the opportunity of pursuing their enquiries on a large scale; and, in the meantime, treat the cases under our care according to the light and knowledge in our possession.

Since the symptoms of peritonitis, and the condition designated septicæmia, are so graphically described in recent works, it is unnecessary to detail them in this paper.

The operator must be constantly on the watch for untoward symptoms, and should, at any time, the temperature advance one or two degrees above the normal condition, while at the same time the pulse and respirations become more frequent, he must immediately take steps to control the circulation, and lower the temperature. The wound, and drainage-tube, if employed, must be examined and carefully cleansed. A full dose of fluid opium must be given at once, and repeated every three or four hours, or, as often as necessary to keep the patient free from pain. In addition I would give ten grains of quinine, in powder, mixed with two grains of aromatic powder, every two or three hours by the mouth, if the stomach will retain it, and if not, then in enemata with the brandy which must be now increased, as well as other sustaining nourishment. Local hot fomentations and turpentine stupes, or dry heat with soft flannels are useful and sometimes afford great comfort.

The head should be somewhat elevated, and kept cool by means of the iced-water cap, or with bladders partially filled with pounded ice constantly applied to every part of it and the nuchal region. I have seen this treatment arrest a violent attack of puerperal peritonitis, and also a pretty high fever following ovariotomy. Some resort to blood-letting, and the administration of aconite, and veratrum viride, as a means of reducing the febrile temperature, but I must confess that I have no faith in such therapeutics; indeed, in a disease of an asthenic type, I believe they do positive harm by unduly depressing the vital forces.

Dry cold applied to the head, however, by means of the ice-cap, or the coiled tubing conveying icedwater—as first practiced in Glasgow for injuries to the head, employed by Mr. Thornton to reduce febrile temperature following ovariotomy, and approved by Mr. Wells—I doubt not, will prove useful for that object, as I have observed its beneficial effects for injuries of the head in the Hamilton Hospital. Others have recourse to the use of the ice-collar to the neck, the ice-bag to the spine, or the icedbath for the same purpose, and with astonishing results.

SEPTICÆMIA.

The existing peritonitis, if not speedily checked, especially if the inflammation has been set up by decomposition and septic absorption, will quickly develop or result in that more formidable condition—septicæmia. Not unfrequently the two are combined, or run concurrently, at least it is impossible to define where the one ends and the other begins. Some assert that septicæmia may occur without any previous or perceptible peritonitis. Usually, however, septicæmia is the result of peritonitis, which has been started by septic absorption. The symptoms by which it is ushered in are well portrayed in the quotation from Thomas's work concerning this condition, and the use of the drainage-tube. The topical treatment of the peritoneal cavity by means of antiseptic injections through the drainage-tube, must be resorted to, and in case the tube has not been employed, the cavity must be boldly tapped, all turbid serum withdrawn, and then thoroughly cleansed by antiseptic injections through the canula.

CONCLUSION.

In conclusion, permit me to say that ovariotomy is an onerous undertaking. The conscientious surgeon finds, from the moment he takes the case in hand, that in addition to the anxiety he must feel, it makes a demand upon his time, thought nerve and skill, for which no merely financial remuneration can possibly recoup him. It is the conviction of the writer that no practitioner should undertake this formidable operation, who has not had considerable experience as a surgeon, and who has not a *penchant* for such practice; who cannot transfer his patients with contagious diseases to another; and surround himself with skillful and cool-headed assistants; and who will not devote himself almost exclusively to the after-treatment; for, unquestionably, it is by strict attention to the preparation, and the totality of the little circumstances connected with the operation, as well as, and more particularly, the after-treatment, that success so much more frequently is now the result of the operation.

(To be continued.)

PRACTICAL OBSERVATIONS ON THE TREATMENT OF DIPHTHERIA AND DIPHTHERITIC CROUP.

BY A. H. CHANDLER, M.D., DORCHESTER, N.B.

The rapid dissemination of diphtheria in town and country, and the frightful mortality in many localities, have induced me to offer the following observations on the treatment of this dread disease. It is with some diffidence the subject is approached, after the exhaustive manner in which the principles of treatment are laid down in the last issue of the LANCET. There were some points, however, scarcely touched, upon which, in this paper, I desire especially to dwell. In the article (Feb. LANCET) "Prognosis and Treatment of Diphtheria," Dr. Lewis Smith observes, "There is no known antidote for diphtheria, in the sense in which quinine is an antidote for malarial disease." From so high an authority, let me venture to differ, and to assert that alcohol in the form of whiskey or brandy, given in large and frequently repeated doses, at the very onset of the disease, is not only antidotal, but abortive and curative as well, in the more advanced stages, in all save a small minority of cases.

Like quinine in some few cases of ague, it may occasionally fail, but the exceptions are rare in adults, and in children from about seven years of age upward. Very young children, however, including, of course, infants, and those affected with diphtheritic croup, cannot bear alcohol in rapidly-repeated, and comparatively large doses; but those of more mature years, with adults of all ages, can take it freely from the first inception of the malady without its producing the usual inebriant effect.

The former will bear one half-ounce every hour or two hours, the latter from two to four ounces,

according to the rapidity and malignity of the disease. Should the attack not abort in twenty-four hours, the continuance of the stimulant will almost invariably hasten the exfoliation, so to speak, of the false membrane, in two or three days at most.

The only additional treatment, excluded however in cases seen early, is sulphur blown into the throat every two hours, freely and continuously, while a trace of false membrane forms or spreads—along with iced chlorate of potash as a drink *ad libitum.** In cases seen later, quinine, or iron and quinine, are sometimes essential, with stimulants, according to degree of debility. In adults, when glandular engorgement is great, threatening even laryngeal obstruction from pressure inwards, ice, in bladders applied at night, the critical time, is of very great service.

It is, however, with the treatment of diphtheritic croup I wish more particularly to deal. In this form of the disease, prostration at first, at all events is comparatively rare, with but little extension o membrane about the tonsils and uvula. Indeed, the little sufferers often run about daily, with scarcely a febrile flush, appetite as usual, vivacious too, playful and happy: but alas! how flatteringly deceptive. At midnight, perhaps, or approaching early dawn, the child awakens with more or less croupy cough, which, with the usual domestic aids passes off by breakfast time. Slowly, but surely and stealthily, however, a false membrane has formed, and night by night the croupy coughings increase, gradually developing into the day hours. On looking, now, at the throat, the tonsils will be found engorged and purple, with little circular patches here and there; or it may be, a single strip of false membrane, and unless soon relieved, death is presently, the inevitable result.

In other cases, the membranous laryngitis is very acute and speedy in progress from the first, with great engorgement of gland and cellular tissue without, as well as tonsillar swelling within; and the patient chokes up in a very few hours, either from pure mechanical obstruction, or the latter conjoined with acute congestion of the lungs, or it may be, capillary bronchitis.

In all croupy cases, it is essential to begin with the free application of heat in some form around the throat and neck, either in the shape of poultices, or folds of lint wrung out of vinegar and hot water, covered with thick flannel, and frequently repeated, night and day—the grand object to be kept in view being the continuous application of heat and moisture. As croupy symptoms develop, apply a fly blister across the front of the chest, and in severe cases, the back of the neck as well, or even on the thighs or legs. In children, however, young, keep the blister open, until out of danger, with any form of stimulating application or ointment. As such cases always bear depressing treatment, full doses of alum or antimony may be given for a few hours, followed up rapidly with diuretics, and if not decidedly relieved, the iodide and bromide of potassium in frequently repeated doses, along with the chlorate. Diet: milk and chicken broth liberally. As the graver symptoms decline, under the above measures, extreme weakness sets in, sometimes speedily, which is easily met with quinine and wine, according to the degree of prostration.

It may be here stated, an interesting feature will often be noticeable with regard to the counter-irritant, from the second or third day of application. The blistered surface instead of discharging ordinary pus, will often now be found to assume the precise appearance of diphtheritic false membrane, as indeed it is, flaking off, as in the throat, while convalescence advances. The following is a case, the gravest of three, recently treated (all diphtheritic) that convalesced last week.

CASE 1. Albert W. æt 5.—*Feb. 7th, 1878.* Was called in, early in the morning; child had been sick during the night; great glandular engorgement; very uneasy; a small patch of diphtheritic membrane on right tonsil; face intensely flushed; anxious countenance; skin generally hot, and complains much of headache; mouth and breath foul. Treatment; hot applications to the throat, renewed frequently, antimony and alum in full doses every two hours until he vomits freely; afterwards every four hours.

Feb. 8th.—Child much relieved; still considerably croupy however, but fever and headache less. Blister applied over sternum, 3½ x 4½.

*In rebellious children, infants, or in any case where the membrane threatens to spread rapidly, the following applied by means of a pliable and firm feather tip, every two hours, diluted with equal parts of water, for young children, will always be found useful.

℞. Acid Carbolici.....ʒ ss.
Tinct. Iodini.....ʒ i.
Glycerinæ ad.....ℨ ss.—M.

Feb. 9th.—Still easier; to have milk and broth liberally, and frequent doses of chlorate of potash. Sent for in the middle of the night; had been growing worse since evening; great dyspnœa; high fever and flushed cheeks. Found on examination, intense congestion of both lungs, pulse 145. A strong mustard plaster was applied over the blistered surface, mustard cataplasms to the back, and to have the following every two hours, in two teaspoonful doses.*

℞. Ant: Tart. gr. i.
Tr. Colchici.
Tr. Digital, *aa* ʒ i.
Syr. Scillæ.
Spts: Eth: nit *da* ʒ iii.
Syr. Aurantii ʒ i.
Pot: Chlor. grs. xx.
Aquæ ad. ʒ iv.—M.

Feb 10th.—Much better; dyspnœa subsided; cough loose; blister shewing a closely-adherent false membrane; breath still offensive; small patch of false membrane yet clinging to tonsil. Sulphur to be blown into the throat frequently. To continue medicine every three hours, including a senega and ammonia carb. mixture, every two hours.

Feb. 11th.—Much better, but quite weak; pulse 95, feeble and compressible. To have strong broth and quinine every hour in full doses, but without stimulants. On examining the blister, the adherent cloth dragged up one corner of the false membrane which bled considerably; the whole blistered surface, being one thick yellowish white diptheritic membrane, which separated piece-meal from day to day, under a weak carbolized dressing of acid and olive oil.

Feb. 13th.—Child much stronger; improving rapidly, with keen appetite; still some cough. To have a mixture of cherry bark, hypophosphites, and cod-liver oil emulsion.

In regard to the treatment of adults, the following are two recent typical cases:—

I. W. father of the above.—*Feb. 15th.*—Was seized during the night with pain and swelling in the throat; high fever; headache and bounding pulse; face much flushed; feels weak, and wants to lie down. It may here be stated that the father had been nursing the little child, who was constantly in his arms, all through his illness. Tonsils on examination much swollen, dusky red, and covered with false membrane. Ordered brandy, two ounces every hour, night and day; no other treatment.

Feb. 16th.—11 A.M.—Swelling in tonsils subsided; better in every way. To leave off stimulants to-day, and drink freely of beef-tea. False membrane separating.

Feb. 17th.—A little weak; to remain in the house for a couple of days. No further treatment.

CASE 3.—Charlotte P. æt. 13. Throat had been sore for the past two days, but she said nothing about it. On visiting, found her recumbent, with headache, pain in the back, and high fever. Had been delirious during the past night; pulse over 100; false membranes on both tonsils and completely enveloping uvula, which latter was greatly swollen and œdematous. To have an ounce of brandy every two hours, and sulphur blown into the throat, with iced chlorate of potash freely as a drink day and night.

Feb. 19th.—No decided change for the better; very weak; glands of the neck rather more swollen. Continued stimulants freely, from sixteen to twenty ounces in the twenty-four hours.

Feb. 20th.—Patient decidedly better, and false membrane rapidly separating. From this date the stimulant was gradually withdrawn, patient making a speedy convalescence.

The above illustrate a number of similar cases, that have occurred during the last three months, and that have been successfully treated under the above plan. With regard to the sudden failure of the heart's action often observable even after convalescence is fairly established, let me enjoin the immediate and free use of alcoholic stimulants, which may be given with the freedom of water, as long as the tendency to syncope lasts, without danger, and with the certainty of success. In these cases of great glandular engorgement in adults, before referred to, let me repeat the advantage to be derived from the continuous application, by night, of bladders of ice.

A word or two, in regard to the much vaunted chlorine mixture. It must be the experience of many who have used this preparation among children that while agreeing well with adults—in very young children it has caused so much irritability of the stomach, that it has to be abandoned altogether.

*This combination, without the antimony in the early stages is highly efficient in the case of infants, and very young children, labouring under acute congestions anywhere, acting sometimes on the skin, and sometimes on the kidneys.

As a gargle however, in those old enough to use it in that way, it is apparently as beneficial as sulphur in discussing the false membrane. With reference to irritable stomach, there are certain cases, occurring in delicate strumous children, where that organ gives out from the first. This is, of course, a very grave complication: many of them can bear neither stimulants, nor nourishment in its mildest form; while bismuth, and other sedatives seem to be of little avail. From want of aliment, they necessarily succumb rapidly under the toxæmic poisoning.

Since the above was written, I have had another case of diphtheritic croup which is perhaps worthy of record. The following are the notes.

CASE 4.—G. W., sister to the young boy whose case is already given, æt 3 years and 4 months.

Feb. 28th, 1878.—Had been seized suddenly; on arrival found her very hoarse, croupy, restless, and tonsils swollen, with dirty diphtheritic patches on both. Placed her at once on alum and antimony, with hot applications to throat and chest.

March 1st.—Patient a little easier, but still quite hoarse and feverish; had vomited freely during the night. Ordered diuretics, with chlorate of potash as a drink; very thirsty; to have iced milk and water; sulphur to be blown into the throat frequently; large fly-blister applied across the front of the chest.

March 2nd.—Still easier; to continue diuretics. Patches on tonsils apparently coming off, and throat looking paler within.

March 3rd.—Sent for early this morning; had been taken suddenly worse about midnight. Patient very croupy with stridulous breathing, tossing about and resting but a moment at a time in her mother's arms. On forcibly opening her mouth; found false membrane spreading over tonsils; skin very hot, and cheeks very bright. Replaced fly-blister over former seat of application; discontinued diuretics, as there were symptoms of increasing weakness. To have four ounces port wine twice daily, and strong chicken-broth every two hours. Prescribed one-fifth gr. iodide of potassium, and 1½ grs. of bromide of potassium every hour. Visited her in the evening; no better; applied in addition a fly-blister over the larynx 2 x 3. To continue broth and wine, and medicine every hour as before. Inspirations very wheezy and sibilant.

March 4th.—Child still very restless and croupy; had struggled violently all night long for breath, but had taken the medicine, nourishment and stimulant regularly, though of course under great difficulties. 1 P. M. Condition apparently hopeless; increased wine to 8 oz. daily, in divided doses every hour; to continue iodide and bromide as often. Respirations 65; pulse very rapid, thready, and beats scarcely to be counted at all.

March 5th.—Called early to see child whose friends considered her dying; very restless; pallid and sweating over face and forehead; lips bluish, unable to speak or open the eyes.

11 A. M.—Called again; a very little easier, and pulse steadier. Had ejected a piece of false membrane in a desperate effort to catch her breath.

3 P. M.—Croupy cough slightly loose; blistered surface assuming membranous appearance; raised more fragments of false membrane after violent coughing.

Evening.—Breathing slightly easier, but respiration even more rapid, and diaphragm jerking violently with each inspiration. Placed under quinine in ½ gr. doses every hour. To continue bromide and stimulants; latter increased to 12 oz. daily. 10 P. M.— Expectoration quite purulent, also shreddy at times. Voice very husky and speaks occasionally in the faintest whisper.

March 6th.—Child much easier, but had nearly choked to death during the night, probably from the sudden displacement of a small piece of membrane in larynx while coughing. A good deal of bronchial spasm after expectorating, for which was given along with the bromide (after stopping the iodide) 1 drop doses of tincture of belladonna every two hours. To continue wine, 12 ozs. daily.

March 7th.—A great change for the better; respirations 40; pulse 140, but steady. A good deal of muco-purulent expectoration. Voice still very husky, but whispers more audibly, and has smiled for the first time.

March 8th.—Still easier; discontinued belladonna and other medicine; wine 8 oz. daily. Placed under syrup of the hypophosphites, with minute doses of strychnia, also cherry bark and cod-liver oil emulsion, every four hours. Had been free from cough during the night but expectorated a good deal this morning. Wine 4 oz. daily. To continue medicine as before;

March 10th.—Patient still improving; sits up in her cot to-day, and although her voice is still husky, she is very smiling and cheerful.

The above was, certainly a bad case, and shews how continued, patient, and persevering effort, is sometimes rewarded with success, when least expected. The little sufferer had fortunately a good stomach, taking every thing offered, amid her breath-struggles, with great energy and pluck. On the two days her life was despaired of, the most enthusiastic tracheotomist would hardly have even hazarded an operation. It is perhaps unnecessary to add, in all cases of diphtheria occurring in families, that the unaffected should be rigidly quarantined in a separate apartment of the house, whenever practicable. Every room should be disinfected daily, or twice a day with sulphur or chlorine fumes. During convalescence, tonics should be administered with nourishing broths, etc.; the convalescent too, should be housed, especially in the winter season, for some little time, and cold draughts avoided with the same wariness, as after attacks of measles, or scarlet fever.

These observations are humbly submitted to my medical brethren as the result of fifteen years experience in the treatment of diphtheria. Many of the principles here advocated, are of course, not at all new, but have been long recognized by leading practitioners throughout the Dominion and the United States.

Dorchester, N.B., March 12th, 1878.

NOTES ON PUERPERAL CONVULSIONS.

BY E. G. KIDD, M. D., MANOTICK, ONT.

I am well aware that the following cases present nothing new, either in the pathology or treatment of puerperal convulsions, yet as the disease is comparatively rare, and must always be of interest to us, I beg to offer them as my share of experience.

CASE 1.—Mrs. H. æt 27; primipara. Labour commenced in the evening of 16th of May, 1871. I saw her about 9 o'clock that night; the limbs and face very œdematous, the œdema having commenced about the end of the sixth month. Urine albuminous; she had an anæmic and waxy appearance. During the last two months she has had intense headache. Labour was slow, and completed by the forceps. About an hour after delivery she complained of blindness, and in a few minutes convulsions came on; during that night and next day she had eight convulsions. Owing to the "age and experience" of the gentlemen in consultation with me, there was no treatment until she had had four convulsions. I then tried to bleed her, but could not find a vein in her arm owing to the œdema; administered chloroform, gave a full dose of calomel and jalap, followed by pulv. jalap. co., Ice to the head, a hot air bath, and diluents *ad libitum*. She made a good recovery, became pregnant again in 1874, and about the sixth month, œdema, albuminuria, and headache returned. I ordered pulv. jalap. co. and diluents. She went to full time and had an easy labour, no complications.

CASE 2.—Mrs. R.; multipara; was attended by a midwife through a severe and tedious labour, Jan. 7th, 1874. About an hour after delivery convulsions came on. I was sent for, and saw her about an hour after the first convulsion; she had had three during that time; I found her plethoric, œdematous, urine albuminous. The pulse was full and the breathing stertorous, face livid; I bled her immediately, and she gradually became conscious, as the "blood" flowed from her arm; applied an ice bag to her head, and as soon as she was able to swallow, gave her a full dose of calomel and jalap, followed by pot. bromide, diluents, etc. There were no convulsions after the bleeding; made a good recovery.

CASE 3.—Mrs. W., æt 30; multipara; consulted me in March, 1874, for dropsy. Was in ninth month of second pregnancy; anasarca was general; urine albuminous. Gave pulv. jalapæ, and mild diuretics, and told her husband to send for me as soon as labour set in, or before, if convulsions came on. Convulsions came on three days after my first seeing her; labour had not commenced; I administered chloroform, and gave pot. bromide in full doses; in a few hours labour commenced, and convulsions ceased. When the os was dilated to about the size of a penny, she had a convulsion, and in a few seconds a dead child was born. She progressed favourably until the third day, when having eaten rather freely, the convulsions returned with great violence and frequency. I bled her freely; gave chloroform when I expected the convulsions, and a purgative. To continue the pot. bromide. She made a good recovery. During the three days interval between the birth of the child, and the second onset of the convulsions, the œdema and albumen decreased; both increased rapidly during the convulsions.

CASE 4.—Mrs. B.; multipara; consulted me in in August, 1874. Is now in the sixth month of the seventh pregnancy; limbs and face œdematous; urine scanty and albuminous; anæmic. Has had attacks of intense headache with vomiting and purging; ordered mild tonics and diuretics. Was called to see her Oct. 2nd; she was in a bewildered state; recognized my voice but said she could not see me; had been vomiting and purging all night; complained of severe headache; was perfectly blind. In a few minutes after my arrival convulsions came on; labour had not commenced. I bled her freely, administered chloroform and waited for labour to begin. Dr. Leggo, of Ottawa, saw her in consultation with me; labour commenced about two hours after the first convulsion, and as soon as the os uteri was sufficiently dilated, Dr. Leggo gave chloroform, while I turned the child and delivered; the child lived a few minutes after birth. There were no convulsions after delivery, although she did not regain consciousness for eighteen hours.

CASE 5.—Mrs. W.; primpara; consulted me for dropsy in June 1874; œdema marked; urine scanty and albuminous. Is now in 9th month of pregnancy; has occasional attacks of headache with vomiting and purging; is anæmic; ordered mild tonics and diuretics. Convulsions came on during severe and tedious labour, about three weeks after my first seeing her. Administered chloroform, applied the forceps, and delivered as soon as possible; she made a good recovery.

CASE 6.—Mrs. C. a stout plethoric primipara was attended by a midwife in July 1875. Convulsions came on previous to the birth of child; I saw her shortly after onset. She was œdematous; urine albuminous; child was born before my arrival—stillborn. She has had occasional attacks of vomiting and purging during the last three months. Bled her; gave pulv. jalapæ, diluents and pot. bromide no convulsions after the bleeding.

CASE 7.—Mrs. H. a plethoric primipara; œdematous, with albuminous urine; was attended by a midwife in July 1875. Convulsions came on shortly after delivery; saw her shortly after their onset. Bled freely; and gave a purgative and pot. bromide. No return of convulsions.

CASE 8.—Mrs. Mc., primipara; very large masculine-looking woman; was in second stage of labour, when I saw her; was œdematous. Legs very much swollen; eyelids almost closed. Fearing convulsions, I applied the forceps and delivered as soon as possible. Before applying the forceps, while in a pain she became unconscious. After delivery she rallied; but a convulsion came on about half an hour after, and she died. I could not bleed, her arm was so much swollen; in fact, she died so quickly that I had no time to do anything; as soon as the spasms were over she was dead. I have attended two cases besides those given *here*, but have no notes of them; both recovered.

NEUROMATA OF THE STUMP AFTER AMPUTATION OF THE ARM.

BY JAS. M. SMITH, M.D., MORPETH, ONT.

Mr. T——, a well to do middle-aged farmer, had his right arm crushed in a threshing machine, on the 19th August, 1876. Being sent for immediately, I found, on arrival at the place, the injury of so serious a nature as to require amputation, and assisted by Dr. Richardson, of Chatham I took the arm off at the upper third. The stump healed kindly, and the case progressed so favorably that in four weeks from the day of the accident, he drilled in five acres of wheat. For a long time he complained of no trouble or disturbance, other than is common to such cases.

On the 22nd of October, 1877, he called at my office, much emaciated, and complaining of extreme sensitiveness and constant pain in and about the stump, attended with muscular weakness, tetanic movements of the muscles of the parts, stiffness of the muscles of the neck and jaw, difficult deglutition, and general derangement of the health. On examining the stump, I found several tumors of various sizes, the largest at the termination of the median nerve, and others in the neighborhood of the brachial artery. Slight pressure being applied to these bulbous enlargements, increased the tetanic movements, and produced most excruciating pain.

The opinion had been volunteered by some, that the median nerve had been incorporated in the original cicatrix. Indeed I should have inclined somewhat to this view myself, had I not taken especial care to avoid such a calamity at the time of amputation. Having tried palliatives to no pur-

pose, I advised the use of the knife, but requested him first to consult Dr. Murphy, of Chatham, who advised the removal of the tumors as the only sure means of giving permanent relief. A few days afterwards, the patient was brought under the influence of chloroform, and Esmarch's bandage applied from the point of the stump to the top of the shoulder. An incision being made three inches long, close and nearly parallel to the original cicatrix, and over the median nerve, I came down upon the first tumor, which was removed at once. Tracing up the incision, I came upon another of smaller size, about an inch from the first, which we removed in like manner. The tumors were bulbous enlargements, having a firm, dense consistence, and constituted a diseased, hypertrophied degeneration of the nerves, that of the median being three inches in length and two inches in diameter. In this case, the nerves were entirely free from the old cicatrix.

Where the tumors were multiple, as in this case, amputation was formerly resorted to for relief. Why degeneration of the nerves takes place after amputation of the arm, more frequently than of any other part is, in my opinion, owing to the way the section is made in performing the flap operation, as was necessary in this case. Unless the median nerve be well retrenched, similar results may frequently occur. Of course this condition of the nerves takes place, more or less, after all amputations, but only demand surgical interference, when extreme, as in the foregoing case. During the operation, not more than a table-spoonful of blood was lost. The distressing symptoms have entirely disappeared, and the patient is now able to sleep and work as usual. Dr. Murphy kindly and ably assisted me in the operation.

Selected Articles.

FRACTURES OF THE NECK OF THE FEMUR IN THE ADULT.

CLINIC BY FRANK H. HAMILTON, M.D.

* * *

We will now consider *fractures of the neck of the femur*, of which we have several examples before us. I shall confine myself to these fractures as they occur in adult life. Fractures of the neck in early life are exceedingly rare, and the few cases which have been recognized clinically have all left a doubt as to their exact character.

I do not propose to speak particularly of the pathology of these accidents, or of their causes or signs. I shall assume that you have studied all these matters. My present purpose is to speak only of the treatment.

It is necessary to say, however, that a fracture may occur within the capsule or without the capsule, and that the latter are almost always impacted, the neck being driven into the shaft, and being there more or less firmly fixed. We have these two kinds of fractures in old people mostly, and although the differ considerably as to their causes, their symptoms and their results, the proper treatment in the two cases differs very little.

Let us see. If the fracture is within the capsule, it may not shorten at all at first; but inasmuch as in almost every such case, perhaps in every case, the neck will be in part or in whole absorbed, generally within a few days or weeks—for this process of absorption goes on very rapidly after the fracture has occurred, as I have proven by several operations upon the cadaver,—for this reason a shortening must soon occur, and in the end the upper end of the shaft will become attached by fibrous tissue, perhaps to the head of the bone, remaining in the socket, perhaps to the capsule and other parts about the joint—perhaps to both; and the shortening is apt to be very great, being probably greater in proportion as the upper end of the shaft and the portion of the neck attached to it is drawn farther from the head by the action of the great muscles of the thigh and hip. You see, therefore, that in this case it might be an object to hold the limb extended for a time with a weight and pulley, and thus to make the fibrous bond as short as possible; in other words, to secure for the limb as much length as possible. I do not speak of this as an ascertained fact, namely, that by permanent extension maintained for a few weeks, the limb, in case it has been broken within the capsule, will be in the end longer than if no such extension had been used. It is a theory only, which to me seems plausible, but which I have not proven. If, as some have thought, and perhaps some still think, a bony union is occasionally effected after this fracture, then certainly the extension would be useful for this purpose. I do not deny that such a thing has ever occurred, but I have never seen it, and I think its occurrence very improbable, even under the very unusual and most favorable circumstance, namely, when the intracapsular fracture is at the same time an impacted fracture. I do not discuss that now. All I wish to say is, that my treatment would be proper in any view of the case.

There is another reason for extension in this case, if it can be employed. In my experience it has given the patient great comfort. It has ar-

rested the contraction of the muscles and the constant motion of the fragments; and if the fragments are already displaced, this contraction and motion causes great pain by pricking and goading the inflamed capsule and the adjacent soft parts. The patient is easier the moment extension is applied. This is not speculative, but actually proven. I have observed it so often that no doubt remains in my mind as to its value in this point of view.

Let us consider now for a moment the *extracapsular*, impacted fracture; and these are almost always impacted.

These all unite readily by bone, and being impacted, they unite very quickly. They are almost always found shortened from the moment of the accident. Sometimes very little and sometimes a good deal—the shortening varying in different cases from one-quarter of an inch to one inch, possibly more or less in exceptional cases. This shortening has very little tendency to increase; but sometimes, if left to itself, it does increase quite perceptibly. The continued action of the muscles push the neck farther and farther into the broken, comminuted, and softened trochanter; softened after a few days by the inflammation.

At the same time and for the same reason that there is a tendency to shorten, there is also a tendency in the fragments to incline outwards laterally and to cause a projection in that direction. In addition to all this the limb is apt to become everted, and this is partly owing to the action of certain muscles.

Now, with this brief explanation of certain peculiarities in these two forms of fractures of the neck of the femur, we will be able to understand what are the indications of treatment in each.

When speaking of fractures of the shaft of the femur in the adult, I said the first indication of treatment was to overcome the shortening caused by the contraction of the muscles, a shortening which we find present in these cases from the first. It is present immediately or very soon after the fracture has occurred, and it has to be overcome by energetic means. The second indication was to keep the fragments in line; and the third, and least important, or least difficult to accomplish, was to prevent eversion.

When speaking in my lecture on fractures of the shaft of the femur in children, I said the indications were in some sense reversed; the first or most difficult, being to keep the limb in line, and the second being to overcome the shortening, in case any existed.

Now, in both of the forms of fractures under consideration to-day, the first indication is not to "overcome," but to prevent shortening and incidentally to subdue or prevent pain; the second is to maintain the fragments in line, and the third is to overcome or prevent eversion. The greatest difference is found in the fact that now, shortening is inevitable, but we have the means of making it less than it would be if left to itself. At least in the case of the extracapsular fracture we can keep it where we find it, while in the case of the intracapsular fracture, we can make the patient more comfortable, and may hope to make the limb longer than it would otherwise be.

The treatment is then essentially the same as for a fracture of the shaft in the adult, except that instead of eighteen or twenty pounds we use eight or ten—no coaptation splints are required—and the extension is seldom useful after about four weeks.

In the case of the patient before you, Catherine McCloud, the fracture is extracapsular. The patient is forty years old. She fell in the street, striking upon the left trochanter, and was on the same day brought to the hospital. Dr. Halsted, my chief house-surgeon, who is remarkably careful and accurate in his management of these cases, found the limb shortened and everted. The dressing was at once applied. Extension with a weight of eight pounds: the foot of the bed being slightly elevated, and the long side-splint being secured to the body and the left thigh. Now, at the end of four weeks, we permit this apparatus to be removed, amd I find the limb shortened half an inch and slightly everted. The treatment is essentially completed, but she ought to remain in bed a week or two longer, and then go about upon crutches.

The tendency to eversion in this case was marked from the first, and has not been overcome My own long splint has failed to accomplish this; but Dr. Monroe, house-surgeon, has employed also in this case two pulleys instead of one, with the two lateral adhesive strips separated below the foot widely. This evidently has some effect in preventing eversion, but it has failed here. In addition to all this, there has been added an apparel devised by Volkman, a German surgeon, and described by Billroth: but you see this has failed equally. In short, you may learn from this that, in a certain number of cases of extracapsular fractures, and for reasons which I cannot now stop to explain, it will be found impossible to prevent eversion, but you ought always to try to make it as little as possible, and we think we have done so in this case.

The second example is in a woman much older, sixty-five years old. For your convenience in recording your notes I will give you her name also—Mary Stafford. She has been under treatment three weeks, and we find the limb shortened three-quarters of an inch, but with less eversion than in the preceding case.

Here is a third case; Pat Nugent, forty years old, fell thirteen feet, striking upon his trochanter, December 1, 1877. He was admitted on the same or following day, and was examined by me. The left leg was found shortened three-quarters of an inch, but he then informed us that this limb was always just three-quarters of an inch shorter

than the other, and that his tailor always made this difference in the length of his pants. There being no eversion or other sign of fracture, I directed that no apparatus should be applied, but that the limb should be measured from time to time, and that he should be kept in bed. On the 10th day we found half an inch additional shortening, in all one and a quarter inches, and as this determined the question of fracture, extension was at once applied. The result is that we have prevented any further shortening. The limb being now one and a quarter inches shorter than the other, or one-half inch shorter than natural. There is now the characteristic enlargement about the trochanter, showing that it is an extracapsular fracture.

I cannot say positively that this limb was not some shortened at first, as I have nothing but his statements to rely upon : but it certainly shortened after he was admitted, and this is a new and important point. I believe, from my later experience, that this happens pretty often when extension is not employed.

My fourth case is of unusual interest, because the same fracture has occurred in both thighs at different periods of time, and the treatment and the results have been different. In all, I am able to present you then with five cases of extracapsular fracture. This last case is as follows :

Dennis Kelly, then seventy-two years old, was admitted to Bellevue in November, 1873, with an extracapsular fracture of the left leg. On the ninth or tenth day after admission, and after fracture, the limb was done up in plaster-of-paris bandages, and soon after he walked about. The plaster remained on several weeks, being once renewed.

On the 30th of October last he fell upon the right side, breaking the neck of the femur on the right side, outside of the capsule, and was admitted at once to this hospital. On the following day, Dr. Halsted applied my dressings, with eight pounds of extension. The man says :—" From the moment the extension was applied I had no pain." This is the usual testimony. The apparatus was continued about five weeks, and we have now to note the results of the two fractures. The left leg—treated with plaster-of-paris—is half an inch shorter than the right—treated by extension. The left trochanter and upper part of the left femur is bowed out, causing an ugly projection ; the right trochanter and shaft have their natural position. In short, the left limb is in the same situation it would have been if nothing had been done, perhaps worse. In the right leg the result is certainly better. I am going to have the patient photographed.

Intracapsular Fracture.—Finally, I wish to shew you, gentlemen, this old lady, Catherine Daly. She says she is seventy years old. This is an intracapsular fracture ; the only intracapsular fracture out of six fractures of the neck which I have shewn you to-day. In my Treatise on Fractures, fifth edition, I have spoken of the relative frequency of intra and extra-capsular fractures as still in dispute. In my experience, however, the extracapsular have been made the most frequent.

Observe now the points of difference. This patient is the oldest of them all, but none are younger than forty. The accident occurred, not from a fall on the trochanter, but from a slip of her foot while trying to drive flies from the room ; there is no enlargement about the trochanter, although three or four months have elapsed since the accident ; and this is more than in either of the other cases ; the toes are turned out strongly.

During the first three weeks she was under the care of Dr. Mott, and extension was employed by my apparatus with eight pounds. Since then she has been encouraged to get up and use her crutches, which she now does to some extent daily. While the extension was on she was very comfortable, but a long confinement would have made her bed-ridden, and it was removed as soon as the stage of inflammation was passed.

This completes my analysis of these cases. The result is in no case perfect, but we have reason to believe that all of those have been benefitted, and their limbs rendered more useful, in whom moderate and continued extension has been employed for a period of from three to five weeks.—*M. d. Record.*

MEANS FOR PREVENTING ATTACKS OF EPILEPSY—EPILEPTIC AURA—IMPORTANCE OF ITS ARREST.

LECTURE BY DR. BROWN SEQUARD.

I pass now to another point. I said yesterday that there is very frequently an *aura* in disease of the brain causing convulsions. It is very important indeed to examine with reference to this point; for if you find an *aura*, it will lead to the use of a series of means which may stop an attack of epilepsy. If an attack of epilepsy can be arrested, we do more than simply arrest that attack ; for during an attack of epilepsy, changes occur which prepare the brain for future attacks ; so, if one attack can be arrested, you may perhaps stop a generation of attacks. It is important, therefore, to prevent an attack of epilepsy. Now, with reference to the means of preventing these attacks. Means for preventing the occurence of attacks of epilepsy were resorted to centuries and centuries ago. Galen insisted particularly upon the importance of ligaturing the limbs for this purpose. Suppose, for instance, there is an aura starting from the finger—a peculiar sensation or muscular spasm; Galen, and a great many physicians since his day, and even in our own times, insisted upon the

application of a ligature to the arm, with a view of preventing the passage of some influence from the extremity to the brain. In reality, we succeed very frequently, by the application of a ligature to the extremity, when the aura is there, in arresting an epileptic attack; but it is not because we prevent something from going to the brain, but it is because we send something to the brain, and that something is an irritation already there, and which if undisturbed, would produce the convulsion. It is the same as that which occurs in diseases of the spinal cord, in which by taking hold of the big toe, you arrest completely, in most cases at least, convulsions occuring in the lower limbs. For example, in cases of spinal epilepsy, the convulsions may be most violent, may last all day, and may recur upon the least touch of any part of the skin of the lower extremities; in those cases it is not rare at all, especially in certain forms of the disease, that drawing upon the big toe brings about a relaxation of the muscles and ends the convulsions. An arrest of the morbid activity in the cells in the spinal cord is produced by irritation of the nerves which go to the big toe, and that arrest remains sometimes for hours, and sometimes for days; but you can reproduce the same phenomena in the same patient. Whenever the convulsions exist, you can witness the influence exerted by this irritation.

As soon as I was possessed of the idea that it was through irritation exerted by the ligation, that an attack of epilepsy was cut short, I tried and found that other irritants applied to the skin produced the same effect; for example, such as extreme cold, great heat, pinching the part; in short, any irritation of the nerves in the region where the aura commences may be sufficient to arrest an attack. In fact, the patients themselves, if they have strength of will sufficient, when upon the point of having an epileptic seizure, can, by moving the limb rapidly, rotating the arm, etc., perhaps stop an attack. Any kind of irritation from the periphery may act upon the brain and arrest the morbid activity of the cells, and that irritation can succeed even when applied upon the other side where the aura exists.

As regards other forms, if the aura starts from the stomach, anything which irritates the stomach powerfully, as a violent emetic, will save the patient from an attack of epilepsy. Certain other means may also succeed, as acting upon the bowels by an enema that will produce a rapid and considerable action of the muscles. Pressure upon the bowels may bring about the same result, if the sensation starts from that region. A galvanic shock, on the contrary, will produce an attack in many cases. If the patient has simply a vague sensation of disturbance without any distinct place from which the aura arises, any means of producing irritation of the skin behind the ears, or between the shoulder-blades, may be of some service, such as the application of ice, a sharp blow from the hand, galvanic shock, etc., Any medicine which acts with great power either upon the stomach or upon the bowels, or which acts with great power upon the nervous system, may be of service in these cases.

MEDICINAL AGENT FOR THE ARREST OF ATTACKS OF EPILEPSY.

A common remedy which is employed with some benefit consists of three or four grains of the sesquicarbonate of ammonia in a drachm or half-ounce of tincture of columbo, or gentian, or rhubarb; it is the alcohol chiefly that acts. Taken without dilution, it is rather strong, and therefore a trifling quantity of water may be added. It should be carried in the pocket, so that it can be used at the shortest warning. Running, jumping, anything and everything that produces a change in the circulation and respiration, may be of service for the arrest of an attack of epilepsy. You may not know what means will operate best upon a patient; but, recommending such means as have been mentioned, he may try one after another until he finds that which succeeds best in his individual case. In that manner, you can perhaps, save the patient from an attack.

COMBINATION OF THREE MEDICINES.

The combination of three medicines I have found has considerable more power in controlling epilepsy than the use of one alone or of two combined. If you employ the bromide of potassium, you must employ with it the bromide of ammonium and the iodide of potassium or ammonia. A combination of these three salts acts with far greater power than when either one is used alone. It is essential always to add the bromide of ammonium if the other bromides are employed. In these cases it is also essential to employ some means of counter-irritation at the base of the brain; or, in cases of distinct aura, some means of counter-irritation at the place where the aura starts. In those cases in which the aura starts in the finger, I have succeeded most wonderfully in controlling the attack by the application of a circular blister in the shape of a ligature to the finger itself. There is, therefore, a series of means which can prove succeessful in preventing attacks in these cases. As I said yesterday, if we can do so much in the way of controlling attacks of epilepsy, why should we not be able to do the same against paralysis, as epilepsy and paralysis are in many respects alike in their mode of production.

PARALYSIS AND CONVULSIONS.

Before speaking further of means of treatment, which may be of immense importance if modified

successfully, I will say a little more with reference to the doctrine regarding the production of paralysis and epilepsy, and also of what I have to substitute for the generally admitted theories.

As you well know, the facts mentioned in these lectures seem to be quite in opposition to the views held by most physicians, if not by all. When paralysis exists, for instance, in the right arm, and we find convulsions upon the right side of the brain destroyed, it is admitted that the centre of the will-power for the right arm has been destroyed, and that is very natural, therefore, that the right arm should be paralyzed. In the same manner, if we excite the convolutions of the brain, or any part of the voluntary motor apparatus—such, for instance, as arises from slight inflammation at the surface of the brain—and the patient is attacked with convulsions, it is quite natural, according to the theory generally admitted, to look upon the irritation there as having produced such convulsive movements—as having put into play the motor activity of the part where the disease exists. These two illustrative instances—the paralysis on the one hand, and on the other the convulsions—are apparently in perfect harmony with what is supposed to be established. But, as I have said many times, we find the same thing taking place, not only upon the opposite side, but upon the side corresponding with the seat of the disease. Certainly the theory cannot apply in these cases. Besides, we find the same thing occurring when the disease is in parts of the brain which are not able to produce the least movements when irritated by galvanism, and which we know, and we all agree, do not belong to the voluntary motor apparatrus. For instance, disease in the posterior lobe of the brain, according to the theory admitted, should never produce paralysis or convulsions; but disease there often produces both convulsions and paralysis. We have then something taking place, and occurring very frequently, which is the reverse of what is generally admitted. What are the explanations given by physicians and physiologists of the fact which seem to be decidedly against their views? The explanations, I must say, have been very few and very timid; and, indeed, I think that I have myself, in fighting against the admitted theory, put forward these explanations very strongly. I believe that what I shall now say can at least certainly explain some of these cases. For instance, in a case of paralysis and convulsions upon one side of the body, we make an autopsy and find disease in the posterior lobe of the brain upon the opposite side. We know that disease exists at that point—we are absolutely certain of it; but, it is said, what evidence is there that there is no disease elsewhere? There may be undetected disease in the part belonging to the voluntary motor apparatus, when the brain is examined in the limited manner necessary at an autopsy; there may be disease in some other part of the brain which cannot be recognized by the naked eye; so we cannot be certain that disease does not exist, unless further examination be made.

There are many cases which at once answer this objection. If we find, for instance, that a patient is stricken with symptoms of hemorrhage in the brain; he has all those symptoms which are manifested when hemorrhage in the brain occurs, and yet had no manifestation whatever of brain disorder previous to the attack, which comes on suddenly. Besides the symptoms belonging to hemorrhage in the brain, he has paralysis in the right arm, convulsions in the right arm and face, and he dies within a few hours, as he may when the hemorrhage is limited. An autopsy is made, and we find hemorrhage has taken place into the posterior lobe. Can we admit that there was disease elsewhere? What kind of disease could have been produced so rapidly? What kind of disease could have produced such paralysis as we find in the arm, occuring just at the time the symptoms of hemorrhage occur?

It is quite certain that in such we cannot say that paralysis and convulsions depended upon something else than the disease we see. Why should not the same thing be true when the paralysis and convulsions are upon the corresponding side of the body? A great many cases besides hemorrhage will shew the same thing. Embolism and softening may produce the same result. For instance, embolism occurs, and we have nothing except the fact that there is a plug in a blood-vessel, and the congestion and softening which surrounds the part. If that lesion exists in a part which does not belong to the voluntary motor apparatus, we must admit that the paralysis, as well as the convulsions, is due to the disease seen, and not to the disease imagined and which we do not see.

Other explanations and answers to these might be given; but as time presses, I will not indulge in them.

There is another source of explanation which is very good indeed. For instance, in those cases in which disease has destroyed the greater part of the voluntary motor apparatus in the region where it is located, and there is neither paralysis nor convulsions. How is the absence of paralysis and convulsions to be explained? It might be said—I do not say that it has been said—that paralysis does not appear because only a part of the voluntary motor apparatus has been destroyed. That may be, and that is the case sometimes when there is slight disease; but why is it that their is neither paralysis nor convulsions when a considerable part of the voluntary motor fibres are destroyed? Then it might be said, that though apparently diseased, yet the tissue remained able to act. This explanation is certainly very good, and may be true, but there is no proof of its truth. In those

cases, for instance, in which there is softening following embolism, it may be that the nervous tissue remains active, although it has undergone considerable alteration.

The same may be true also in cases of tumors pressing upon different parts of the brain; there may be simple atrophy of brain-tissue, but no loss of function, however altered the structure may be. Certainly, there is a passable explanation for a number of cases. It is quite certain that nerve-fibres, for instance, have one essential element—the axis cylinder—and it may be that that part remains active, although there is considerable pressure; what then of those cases in which the tissue has been so destroyed that there was no normal tissue left, and if the cylinder axis remained visible it had no cells which were not considerably altered? There are such cases, perhaps forty or fifty, in which disease has struck parts at the base of the brain; many more in which the convulsions were involved, and no tissue left which was unaffected.

There are two series of cases: those in which the brain-tissue is completely altered, and those in which tissue is missing. There has been, however, no marked paralysis in a number of those cases, and there has been also no convulsions. It is clear, therefore, that there are a great many facts which cannot be explained by, and which are in direct opposition to, the views generally admitted.

THE THEORY BROUGHT FORWARD AS A SUBSTITUTE FOR THAT GENERALLY ADMITTED REGARDING THE PRODUCTION OF PARALYSIS AND CONVULSIONS.

What then is the theory which we are to substitute for that generally admitted with reference to production of paralysis and convulsions?

I have many times said that paralysis and convulsions appear through the same mechanism, however different one symptom is from the other. If you admit, as I do, that the cells in the gray matter of the brain are endowed with the same function, the explanation of the production of paralysis and convulsions is very plain. For instance, the cells which are employed in moving the right arm are scattered in the brain, as well as are the cells which serve for any special function of the brain. These cells being so scattered, and belonging to one function, are connected one with the other by fibres, so that they may act with harmony.

Suppose that, the cells being so distributed, an irritation comes from the bowels; it is transmitted to certain parts, and instead of going to certain other parts, it meets, in the part to which the irritation is transmitted, cells which are then employed in the production of voluntary movements, or those which are able to produce movements by reflex action. These are two distinct kind of cells, as many facts shew. If that irritation reaches cells which are employed in producing voluntary motor action of the arm, for instance, it produces the same effect as does irritation by galvanism of the nerve going to the arm at any point at which it can be reached in the neck—the cells are stopped in their action, their activity is suppressed, and paralysis occurs.

If, on the contrary, an irritation, starting from the bowels, acts upon those cells which are able to produce reflex movements—whether these cells are situated in the base of the brain or elsewhere—those cells are put into play and convulsions occur; that is, reflex movements of a convulsive character.

What takes place when irritation starts from the bowels is the same as that which occurs when disease in the brain exists. An irritation starts from the posterior lobes, for instance; it spreads into the brain, and if those cells, wherever they are, which serve for voluntary motor movements, are acted upon, they are exhibited in their power to produce motion, and there is paralysis as the ultimate result of the irritation. If, on the other hand, the irritation starts from the same place, and reaches cells which are connected with the production of reflex movements, convulsions will appear. In both instances we have the same elements; there is an irritation starting from some place, and travelling to some cells, and there either inhibits their activity or produces reflex movements—produces either paralysis or convulsions. The irritation may inhibit the action of the cells which serve in the expression of ideas in speech, and give rise to aphasia.

I have not time to dwell further upon the opinions which I hold, in order that you may understand them better; but I will say that paralysis or aphasia, or loss of function in any part of the brain, can occur by attacks, as well as convulsive movements can occur in attacks.

You can now easily understand how an irritation operates to produce attacks of paralysis, aphasia, amaurosis, etc., and it can be easily seen that when the paralysis persists there is also something of the same kind of action. The objection to this would be: How is it such power can be kept absolutely inactive for so long a time as it exists in paralysis which is persistent? We know already that, in many cases of paralysis produced by organic disease of the brain, there has been sudden change for the better; and there are cases in which rapid cure has occurred, although the organic cause which has produced the paralysis has persisted. In fact, fluctuations, in the loss of function in any part of the brain are frequently observed, and these fluctuations may go on to such an extent that the patient may be cured very rapidly, and in certain cases very suddenly. If there was paralysis or loss of function because of the existence of the organic disease, the lesion persisting, the effect would per-

sist. But it is not so. It must be that something exists which ceases to exist at the place where the effect is produced.

We know that in animals we can arrest the activity of those cells which serve for the production of sight, and the activity of cells serving to all the mental faculties and the will. The activity of the cells employed in any of the functions of the brain can be suddenly arrested by certain irritations. In cases, for instance, of hemorrhage into the upper part of the spinal cord, without possible pressure upon the brain, there may be immediate loss of consciousness. There are two such cases upon record. Certainly there was loss of activity of all the functions of the brain as regards power of motion and sensation, all will-power, and that from an irritation which started at a distance from the brain. Certainly, also, there was no pressure upon the brain in these cases. In these cases, also, consciousness was restored after a time.

Sometimes we produce death rapidly, and destroy, therefore, all the activity of the brain, by a mere prick.

We can also produce a persistent amaurosis by a mere prick of the restiform bodies, and the amaurosis appears instantaneous. There is no direct connection between these bodies and the eye, yet the amaurosis persists while the animal lives; and I have had an animal that lived more than two years after the production of such a disorder of vision.

All will-power and all sensibility also may be destroyed by a mere prick in certain parts. If for instance, the spinal cord in animals be pricked in the dorsal region, it is found that sometimes there is produced a cessation of the activity of cells there, and we have anæsthesia upon the opposite side and loss of will-power upon the corresponding side.

We find in cases of disease of the brain that the pulse is weakened and is exceedingly irregular as long as the patient lives; it is an arrest of the action of the heart while the disease exists in the brain. If the action of the walls of the heart can be so modified, and persistently modified for months and months, the same thing may exist for different parts of the brain.

In the same manner, reflex activity may be arrested for months and months, as, for instance, the cell activity which controls the contraction of the sphincters of the bladder and rectum, and the loss of control over the action of these parts may be permanent. The same thing may take place for the cells which control voluntary movements.—*Med. Record.*

SICKNESS OF PREGNANCY.—Dr. J. Marion Sims, in the London *Lancet*, commends in the highest terms cauterization with nitrate of silver of the os uteri for this trouble. He has found it most successful, one to three applications curing. Dr. Jones, of Chicago, originated this treatment.—*Clinic.*

UNUNITED FRACTURE OF THE HUMERUS IN AN OLD MAN, SUCCESSFULLY TREATED BY RESECTION OF THE ENDS OF THE BONE AND THE APPLICATION OF SILVER SUTURES.

BY MR. HENRY SMITH, KING'S COLLEGE HOSPITAL.

The value of resecting the ends of the bones in ununited fracture was very well illustrated in the following case. The patient was an old man in feeble health, and therefore not a good subject for any serious operative interference; but, on the other hand, with an ununited fracture of the humerus he was unable to follow his employment of hairdresser. It was this last consideration that chiefly influenced Mr. Smith in deciding to attempt reunion. The case was not immediately successful, but it is not less interesting on that account as it shows the importance of the element of time in such cases. When the patient was discharged from the hospital, four months after the operation, there was no sign of osseous union, although the ends of the fragments had been kept immovable and in close apposition by means of silver sutures and a splint. Two months later some callus could be felt; and one month later still, or seven months after the operation, there was firm bony union.

Michael N——, aged sixty-one, a hairdresser, was admitted under the care of the late Sir William Fergusson on march 6th, 1876, with a fracture of the middle third of the left humerus, and a Colles' fracture on the same side, which he had sustained by falling down stairs.

He was discharged on March 23rd, with the Colles' fracture united, but the humerus still ununited.

He remained in St. Giles's Workhouse till Jan. 15th, 1877, when he was admitted into the hospital under Mr. Henry Smith. The fracture at the junction of the upper and middle third of the humerous was still ununited. He was in a very feeble condition of health altogether, and looked like a man who had been badly nourished. The arm was placed in splints, and, as on March 17th no union had taken place, Mr. Smith performed the following operation. A longitudinal incision of two inches was made down to the bone over the seat of fracture; the broken ends were then cleared and the fibrous tissue about the ends removed; the broken ends were then sawn off, and a silver wire passed through each end and twisted up, thus bringing the cut surfaces into apposition. The arm was put up on an angular inside splint.

On June 26th the fracture was still ununited, and it was in the same condition on July 10th, when he was discharged with the wires left in.

On Sept. 25th he was readmitted. The wires were still in, and some callus could be felt around them. On Oct. 4th, on removing the splint, union

was found to have taken place. On Nov. 2nd the protruding ends of the wire were cut off, the remainder being left in; and the splint was reapplied. On Dec. 5th the splint was discontinued; the fracture was united, and the health was fairly good; there was a small depression in the skin at the site of operation.—*The Lancet.*

OPHTHALMIA NEONATORUM.

In the LANCET AND OBSERVER for January, 1876, I reported one hundred cases of ophthalmia neonatorum, observed in private practice and an equal number treated in the Cincinnati Hospital. I have now to add to that number fifty cases, from private and seventy-seven cases from Hospital practice.

Of the former, five cases (ten per cent.) were blind in *both* eyes when first seen, and eight cases (sixteen per cent.) were blind in *one* eye. Of these eight cases, six had good vision in one eye, and two had leucoma adherens. In both of the latter cases an iridectomy was successfully made, giving the patients a moderate amount of vision. The cornea was slightly infiltrated and hazy in three cases (six per cent.) but all of these did well and the cornea cleared up under treatment.

Ulceration of both corneæ is noted in three cases (six per cent.) and one of cornea in two cases (four per cent.) but all of these made a fair recovery. Macular cornea more or less pronounced remained, but there was a reasonable prospect of the corneæ becoming so clear, as to give the patients useful vision.

Leucoma adherens affecting one eye (the other one remaining sound), occured in two cases (four per cent.), and in these there was a chance for an iridectomy in the future. In twenty-seven cases (fifty-four per cent), the corneæ were clear and intact when first seen, and these all made a good recovery, no corneal complication arising during the course of treatment.

These fifty cases taken with the one hundred previously reported, show a total of 7.3 per cent. blind in both eyes, and 9.3 per cent. blind in one when first seen. Only 56.6 per cent. of the total number were free from corneal complication when first presented for treatment, but *all* of these recovered with good eyes. If this should not be sufficiently satisfactory, I will refer again to the results in the Cincinnati Hospital, where seventy-seven were treated during two years ending last March. Of the total one-hundred and seventy cases treated during the past six years, by Dr. Aub and myself, not a single one was lost, nor did ulceration of the cornea occur in any. With regard to the Hospital cases, I will say, that they presented all the ordinary symptoms of such cases, as they are seen in private practice, if observed at the same period. The difference in development and termination of the disease, depended entirely on the treatment to which they were subjected. In the hospital the treatment was commenced immediately without the loss of a single day, while those treated in private practice, were either in the hands of ignorant midwives and nurses, and not treated at all, or were subjected to irrational and inefficient treatment at the hands of the family physician.

In order to test the efficiency of the treatment in the hospital, experiments were made in this manner. Two cases of ophthalmia neonatorum, as nearly alike as possible were chosen. In one the ordinary treatment was carried out, while the other was allowed to take its course for a while. The result was, that while the former improved, the later became gradually worse every day that treatment was neglected.

The result of these cases in hospital and private practice, goes to show quite conclusively, that if a proper treatment is instituted early, before any corneal complications have arisen, that the termination is invariably favorable. Are we not therefore compelled to blame either the midwife, or the nurse, or the physician for the unfortunate results, which we have recorded?

I append the treatment which was given in the former article.

The treatment of these cases, which is carried out almost entirely by the internes under the supervision of the attending oculist on duty, is with little variation as follows:

The eyes are cleansed every hour or half hour, or even oftener in cases where the discharge is very profuse, by gently separating the eyelids with the fingers and removing the accumulated pus with a soft rag or camel's hair brush. A solution of alum gr. ij. ad. aqua ℥ss. or of argent. nitrat. grs. ij. ad. aqua ℥j. was dropped into the eye every hour or two.

Cold compresses are used in many cases. They are generally well borne and are grateful to the little patients. They must be changed frequently in order to accomplish any good, but care must be taken in delicate children not to abstract too much heat.

Every morning the eyelids are everted and brushed with a solution of argent. nitrat. grs. v. ad. xx ad. aq. dest. ℥j. according to the severity of the case, and the lids washed off with tepid water. Unless the swelling of the lids mechanically prevents it, the cornea is inspected *daily* in each case. As the case improves the interval between the instillations of alum and argent. nitrat. is continued in a weaker or stronger solution, until every trace of the disease has disappeared.

The greatest stress is laid upon the thorough cleansing of the eye in the acute stages of the disease, and this is attended to, not only by day but by night.

To this part of the treatment, do we owe the immunity of the cornea from ulceration. The pus

is neutralized or coagulated by the action of the nitrate of silver and alum, and its corroding effects thus prevented.

Another important point in hospital treatment is that the cases receive attention *immediately* the slightest swelling of the lids is noticed, and the severity of the disease is probably thus diminished.

When the lids are very much swollen their eversion is an easy matter. Slight pressure with the tip of the index finger, upon the lid near the edge of the orbit, will generally suffice, or a probe or the handle of a camels hair brush may be used instead of the finger. As the lids get thinner their eversion is much more difficult. Then it is better to seize the cilia between the index finger and thumb, or, the loose skin near the margin of the lid, and draw it a little down and out from the ball, and at the same time make pressure upon the upper edge of the tarsus, which if properly directed easily everts it.

The best plan is for the operator to lay the child across the nurse's lap and takes its head between his knees, after first protecting them with a towel. In this way he can control the motion of the child's head most easily, and make the applications most effectually."—*Lancet and Observer Cin. Dr. Agres.*

LITHOTOMY BY THE RECTANGULAR STAFF.

By GEORGE H. B. MACLEOD, Esq., F.R.S.E., Regius Professor of Surgery, University of Glasgow.

[In the year 1848, Dr. Buchanan, of Glasgow, published his paper explanatory of the operation by means of the rectangular staff (*Retrospect*, vol. xvii., Jan. to June, 1848, p. 214, Eng. ed.) This operation has, however, never come into use in other places, notwithstanding its obvious advantages.]

In Glasgow the rectangular staff is almost exclusively employed, and confidence in it has steadily increased from year to year, while I do not think it has ever been fairly tried elsewhere, unless I except its occasional use by Mr. Hutchinson in London. I cannot but hope that if its merits were better known it would be adopted by the profession in general throughout the country.

In the original paper the author tells us how he was led by a perusal of Dupuytren's "Memoir or Lithotomy" to institute experiments, and how gradually he came to fashion his new staff, and adopt the improved method of penetrating into the bladder and dividing the more external parts." The staff used by Dr. Buchanan is bent at right angles three inches from the point, and is hence "rectangular." It has a lateral groove along the horizontal part, and the end of this groove is closed. When the instrument is introduced, the angle lies in the membranous part of the urethra, close in front of the prostate gland, and can be felt by the finger placed in the rectum, or by a little pressure on the perineum, to occupy a point a little in front of the anus. The horizontal part lies parallel to the rectum, and extends into the bladder.

In operating, the staff is so held as to occupy an intermediate position between being hooked up under the pubis and being pressed down on the perineum, and the operator keeps it steady and distinguishes its correct position by placing his left forefinger in the rectum under its horizontal part. The thumb of the left hand is at the same time pressed gently in front of the anus, so as to mark the site of the angle and to keep it steady. The exact position of the angle is very easily determined, as there are only the skin, superficial fascia, and some fibres of the sphincter between it and the thumb. The knife used is a straight-backed one, whose blade exceeds in length the grooved portion of the staff by about one-fourth of an inch. The point is sharp, and it should have a cutting edge on its back for about half its length, by which the tissues along the groove are more surely divided towards the middle line of the perineum. The shoulder of the knife is low, and the breadth of the blade equal from shoulder to hilt.

When the patient has been tied in the usual position, and the staff placed as above described, and fixed by the operator's left hand the knife, (held short and above the hand, palm upwards) is slowly inserted just above the anus "just where the mucous membrane shades into skin," and close to the raphé. The edge is turned to the left side of the perineum, or to the operator's right. The blade is not introduced parallel to the horizontal part of the staff (which would greatly increase the risk of its escaping from the groove as it passed on into the bladder), but obliquely, so as to impinge on the groove at an angle; and as it is afterwards pushed on towards the bladder, a *slight* obliquity is still maintained, so as to assure the operator that the point is in the groove, and to ensure its non-escape therefrom. In this way the whole length of the groove is traversed, and the point of the blade finally arrested by the closed end of the staff. It is then best slightly to withdraw the blade and to complete the division of the soft parts as it is brought out, the knife being "lateralised" and made to cut in a semi-circular direction between the anus and the tuberosity to a point rather behind the level of the anus. The whole cut may measure from 1⅛ to 1½ in., according to the development of the parts. "It approaches," says Dr. Buchanan, "very nearly to one-half of Dupuytren's incision, only it lies much nearer the rectum, and though little different in size, involves a large portion of the circumference of the intestine." Nothing now remains but to insert the left forefinger, following the horizontal portion of the staff into the bladder, and

dilate the very limited wound found in the prostate, while the staff is withdrawn and the stone extracted in the usual way.

It will be observed that no incision is made over the angle of the staff before it is penetrated. To make such a preliminary cut only complicates matters. No aid is got from it, and the parallelism of the two cuts is difficult to ensure. The staff is opened at one thrust, and if the precautions above described are taken there is no danger in this step. The knife should never be pushed on till the operator feels confident that it is in the groove. This the grating of the point of the knife on the groove makes very evident to him, and the assistant holding the staff also plainly perceives it.

From the above description it will be apparent —(1) That in this method of operating, only one incision or cut is, as a rule, required, and no dissection called for. (2) That the incision lies lower down (*i.e.*, nearer the anus) than in Cheselden's operation. (3) That the urethra is opened considerably nearer the bladder than it is in the lateral operation. (4) That a straight, short, and direct road is followed to the bladder; the prostate gland being reached at the point where it most nearly approaches the surface of the perineum. (5) That less injury is done to the soft parts of the perineum and the urethra than in the ordinary operation, the incision, though all that is necessary for the purpose in view; being much shorter and more limited. (5) That there is much less danger of wounding important blood-vessels, as the incision does not go near them. (7) That the rectum is, by the action of the horizontal portion of the staff, rendered straight, and is therefore not in the least danger of being wounded, as at first might be supposed it would be. (8) From the near neighbourhood of the anus to the incision the wound is easily stretched or dilated, so that it does not require to be of great size. (9) A more limited incision is made in the neck of the bladder than is usually inflicted in the lateral operation, and the wound lies in the longest axis of the prostate. (10) If the stone is very large and much room needed, the right side of the prostate is easily reached, and can be incised with a probe pointed bistoury.

In short, I hold that this mode of operating most perfectly fulfils all the requirements of an easy, rapid, and safe access into the bladder; that the surgeon cannot go wrong who exercises the most trifling care; that there is the least injury to structures and the minimum risk of complications; that it provides the shortest road for the stone to travel as it is extracted, and that the most direct and efficient drain for the urine is established.

In speaking to hospital surgeons elsewhere of this operation, I have always found that their objections to use it were either, (1) the supposed difficulty of introducing (especially in children) a staff of the rectangular form; (2) "the stab in the dark," as the passing of the knife into the angle was occasionally termed; (3) the risk of the knife escaping from the groove; and, lastly, the supposed danger of wounding the rectum.

There is no doubt but that the first objection is well founded. It requires care to pass the heel of the staff especially through the meatus, even though the operator catches the staff short (as he should do), and exercises every care. So, too, in watching the heel, beginners are apt to get the point caught at the subpubic curve, and it was to overcome this difficulty that I had the staff changed as afterwards described. The second objection has not much practical force. The heel is so easily defined by the forefinger and thumb of the left hand applied in the way above indicated, that it is readily entered. Yet some operators hesitate to attempt this by one movement of the knife, and make a preliminary incision to that by which the point of the blade is placed in the groove. This should, however, be avoided, as was before explained. The third objection is groundless if the rule I give is followed—viz., to insert the knife at an angle into the groove, and to keep it at a slight angle to the horizontal portion of the staff all the way into the bladder. In this way the groove is "felt" all the way by the point of the knife. The fourth objection is quite untenable. It is suggested by experience of the curved staff, which, from its shape and the way it is held in lithotomy, exaggerates the curvature of the bowel. The rectangular staff, on the contrary, renders the upper surface of the rectum straight, and no injury whatever to the bowel attends an operation performed with it. There is a tradition in the school that it was once wounded, but I have never known it happen in my day.

It was, however, to overcome the force of the first and second objections that I was led to alter the construction of the rectangular staff. After trying various experiments, I have finally had the staff hinged by a very simple and effective mechanism, ably executed by Mr. Hilliard, of this city, so that when being introduced it can be placed in the most favourable position for being passed along the canal, and when it is in place, by turning a screw in the handle, it is firmly fixed in a rectangular position. The pressure of the left forefinger in the rectum brings it to its right-angled position (and that it cannot pass), and then two turns of the screw fixes it there. By this simple plan much is gained. First, all difficulties of introducing it is overcome. Secondly, the heel of the staff (which is the point we seek for, and which there may be a difficulty in finding if the staff is a small one), may be greatly enlarged (widened and made more easily detected), and so more surely entered. And, thirdly, the removal of the staff from the urethra is also facilitated, as by reversing the screw the horizontal portion is allowed to fall, and so the angular shape of the staff is done away with. So long as

the staff was rigid at the angle the heel had to be kept small, as it was in passing it through the meatus, and in conducting it and the point along the canal that the difficulty lay, but with the hinge at the angle a large wide heel can be easily passed, and so made available. I have used this new instrument four times on the living with great satisfaction and the hearty approbation of those who have seen its simplicity of action.—*The Lancet.*

FRACTURE OF THE FEMUR IN CHILDREN.—In a clinical lecture delivered at the Bellevue Hospital (*New York Medical Record*, January 5), Prof. Frank Hamilton observed that the pathology of fracture of the shaft of the femur differs as it occurs in children as compared with adults. In adults the fractures are almost always oblique—very oblique; the line of fracture is relatively smooth, and the fragments overlap very much; while in children the fractures are often nearly transverse, denticulated, and not unfrequently, especially in very young children, only partially separated, and not at all overlapped—in short, they are apt to partake more or less of the character of the "green stick" fracture. If overlapping occurs, it is usually to a limited extent, because the muscles have so much less power to cause displacement in this direction. The fragments are bent or thrown out of line easily, but there is little or no displacement in the line of the axis of the bone.

Prof. Hamilton believes that these differences have not been sufficiently borne in mind by surgical writers when directing the treatment of these fractures in children. They seem to consider the same procedures applicable to them as to adults, while, in fact, the indications are reversed. Thus, in the adult the first and most difficult indication is to overcome the shortening caused by the obliquity of the fracture and the powerful action of the fully developed muscles, and the second is to keep the limb in line. But in children the first and most difficult indication is to keep the limb in line, and the second is to overcome the action of the muscles, or this second indication may not be present at all. The double inclined plane is totally unsuited for the treatment of these fractures in children. "I have tried these machines often in my earlier experience, and they gave me infinite trouble and disgust. They had to be readjusted daily, and if I got a good result it was a mere matter of accident." The plaster-of-Paris bandage, in which the limb is placed in a straight position, is a dangerous appliance for children, and that in proportion as the child is younger—the danger of strangulating the tissues and producing gangrene being greater. Bandages of any kind, indeed, applied with sufficient tightness to support the bones which lie deep in the soft and yielding tissues, are liable to cut off the venous or arterial circulation. Moreover, they soon get loose and became fouled by the urine and fæces, which also, whatever care or ingenuity be employed, excoriate the delicate skin of these little patients. The straight position—with short side pulleys and weights, which constitute the best apparatus for adults—fails in the case of children, owing to the restlessness of such young subjects constantly disturbing the fragments, and leading to vicious union.

To meet these difficulties, Prof. Hamilton devised an apparatus which he has now employed with most satisfactory results for twenty years. This consists in a double thigh splint, connected below by a cross-bar, and which is figured in the last edition of Erichsen's "System of Surgery." Each splint is about four inches wide and half an inch thick, and extends from within two or three inches of the axillæ, to four or five inches beyond the bottom of the feet. These splints are so united by the cross-bar that they are separated from each other farther at their lower than at their upper extremities by two or three inches—thus, by keeping the legs a little more asunder, preventing the child in some measure from wetting the dressings. The splints must be well padded to fit all the inequalities of the sides of the body and the limbs. So prepared, the double splint is laid on the bed enclosing the body and legs of the child. The sound limb is first secured to the splint by successive strips of roller from the foot to the groin, and, after extension, the injured limb is treated in a similar manner. The short or coaptation splints (consisting of thin wood, cloth, felts or binder's board, etc., and lined with some lint or woollen cloth somewhat larger than the splint) are now applied, or may, if there be contusion or swelling, be delayed for a few days. The front or top one must extend from the groin to half an inch from the patella, which it should never touch. The outside splint extends from the top of the trochanter major to the external condyle, or lower if the fracture (usually at the middle) is low down, and the inside one from the groin to the internal condyle. The back splint must be firmer, wider, and longer than the others, and should be made of heavy sole-leather or wood. The limb is to rest on this as a sort of bed, and it ought to extend from just below the tuber ischii to three or four inches below the knee. It should be carefully padded for the inequalities, and covered with cotton-cloth to keep the padding in place, and fasten the circular bands to. Three or four inches or more of the upper end may be covered with oiled silk. The centres of five or six strips of cotton-cloth, each about one inch wide, are to be stitched to the back of this fourth splint, and, the splints all being in their proper places, the strips are to be brought around them, and tied in bows over the front splint. The long splint is not to be included as there would be danger, when the body sinks upon the bed, that the thigh might bend at the

point of fracture. A broad band is now passed around the body near the top of (and including) the long splints, and another broad band under the nates, leaving a hole for defæcation. The upper band keeps the child in the recumbent position, and supports his back when he is taken up; and the lower one supports the nates and thigh when he is taken up, and may be stitched on each side to the long splint. In most cases a soft and flat perineal band may also be applied with advantage; and it is of importance to look at the back splint daily, and maintain it in its place.

In this way the broken limb may be kept straight and quiet, and the patient can be removed at any moment, have his bed changed, or even be carried out of doors. In children of five or six, or older, extension by means of a pulley can be added if required—using about three pounds for a child of four, and one additional pound for each additional year. Fortunately these bones unite quickly (generally in three or four weeks); but it is prudent to keep on the apparatus five or six weeks, and not even then allow the child to walk. "If you follow my directions carefully, and take the proper pains, looking after your patient daily, you will always get straight legs, and in most cases there will be no perceptible shortening, what little that may occur never causing the slightest halt in the gait. This has been my uniform experience since I began to use this dressing, and I have used it now for more than twenty years."—*Med. Times and Gazette.*

PUERPERAL SCARLATINA.—C. M., AGED 28, primipara, was delivered of a living female child of ordinary dimensions on October 21st. The labour was tedious, lasting about thirty-six hours. The head presented; the placenta and membranes came away entire in twenty minutes, the uterus remaining firmly contracted. The mother did uninterruptedly well until 10 P.M. on the night of October 26th, when she complained of sore-throat and slight shivering, and vomited repeatedly. On October 27th, she was feverish, restless, delirious during the night; the vomiting continued; the lochia were very scanty and extremely offensive; there was total suppression of milk. Light-coloured offensive stools were passed two or three times during the day. Her mother, at 10 A.M., noticed her face and hands to be of bright scarlet colour, but omitted to examine her body. On October 28th, she had been very delirious the preceding night. Her medical attendant saw her at 11 A.M., for the first time after the morning of October 26th, and found her covered all over a well maked scarlatina rash. Temperature 103.2 deg.; pulse 128. At 7 P.M., the temperature was 104.6 deg. On October 29th, she was very restless and delirious in the night until 2 A.M., when she became quiet.

I saw her for the first time at 9.30 A.M., and found her lying on her back, with dilated pupils, face pinched, lips bluish; the tongue was dry and brown; the throat dusky red; the whole of her body, with the exception of the face, was covered with a scarlatinal rash of a dusky scarlet colour; there were purpuric spots about the extremities; the hands and legs were of a bluish colour; the muscles were very soft and flabby. There was no tenderness or distension of the abdomen. She was pulseless. Temperature 105.2 deg.; respirations 48, shallow, laboured, and sighing. She was conscious, and, when asked if she felt any pain, answered in the negative. At 11.45, she was unconscious, the whole of her body assuming a livid colour. Temperature 107.4 deg. She died at 12.20. No *post mortem* examination was allowed.

REMARKS.—It is an interesting case, inasmuch as the woman lived long enough for the scarlatina to fully develop itself. It bears out the opinions of Drs. Snow, Beck, Meadows, and others, "that scarlatina does not change and produce only 'malignant puerperal fever,' but it retains its specific characters in the parturient woman." (W. T. Haines, M.R.C.S., *London Lancet.*)

[A case almost exactly similar to the above occurred in this city a short time ago. The rash appeared on the first day after confinement and the patient died on the 7th day ———.]—ED. L.

DIAGNOSIS OF THROMBOTIC OCCLUSION OF ONE OF THE CORONARY ARTERIES.—Dr. A. Hammer, Professor of Surgery at St. Louis, at present at Vienna, publishes in the *Wiener Medezinische Wochenschrift* (February 2) an account of a case in which the above condition was diagnosed and verified by *post mortem* examination. The man, 34 years old, strongly built, had for the past year suffered from slight attacks of articular rheumatism, but no valvular affection of the heart had occurred. For four weeks previously to his being seen by Dr. Hammer, a very sharp attack of acute rheumatism had existed, but had gradually improved, and convalescence was proceeding. One day he got out of bed, and sat in an easy chair. In about an hour he suddenly collapsed, his pulse was 40, his lips pale and a little cyanotic; there was slight dyspnœa, but no pain. Five hours later his pulse beat only 23 to the minute, four hours later 16 to the minute; and when Dr. Hammer arrived (the previous observations having been made by the family medical attendant) the pulse was only 8 to the minute, a cardiac contraction occurring every eight seconds. There were no symptoms or signs of disease in the nervous or respiratory systems; percussion of the precordia showed no abnormal dulness. On auscultating the heart, the sounds were not accompanied or replaced by any murmur, but following them there was a tremor of the heart perceptible to the ear, conveying the idea of a clonic spasm, which lasted five seconds, the cardiac

sounds occupying one second, and the spasm being followed by two seconds of absolute rest. These phenomena were followed for twenty minutes, and were quite regular and without variation. Examination of the abdominal viscera and of the cervical region gave negative results. In arriving at his diagnosis Dr. Hammer was able to exclude fatty degeneration and enfeeblement of the heart by the physical signs, although perhaps at present we are not in a position to define exactly the signs of these affections. Alterations of innervation, he says, were contra-indicated by the absence of all evidence of change in the central nervous organs, or in the cervical nerves; of an acute infectious disease there was no evidence; the percussion of the heart and the examination of the thorax generally negatived the idea of any altered relations of pressure or of any organic affection of the heart such as myocarditis, endocarditis, hypertrophy, atrophy, or valvular disease. The striking feature in the case was the suddenness of the collapse, which pointed to a sudden interference with the nutrition of the heart, possibly to thrombotic occlusion of the coronary arteries; further consideration convinced him that, though this was probable, only one artery could have been occluded, or the heart would have come to a stop altogether, while the regular tumultuous heart-spasm of five seconds' duration pointed to a one-sided affection. The affected side acted as a dead weight to the organ, and impeded the movements of the sound half, but whether the affected side was right or left no conjecture seemed possible. Dr. Hammer accordingly made his diagnosis, much to the astonishment of his colleague. The patient died nineteen hours afterwards; and, leave to make a partial examination of the body having with difficulty been obtained, the thorax was opened. The lungs were engorged and œdematous; the pericardium contained half an ounce of clear serum; the heart was of normal size and appearance, and lay in its proper position, fully distended. Its surface was smooth and shining, and, except a layer of fat in the conorary sulci, there was no trace of fatty or other infiltration. On removing the heart, they found the right auricle and ventricle full of clot, the cavities and valves normal; the muscular wall and endocardium were also normal. The left side of the heart was equally so, except the aortic valves. In these latter the most striking appearance was the distention of the right cusp by a mass which nearly filled the right sinus of Valsalva, and was of a hemispherical shape. The superficial layers of this mass, followed into the coronary artery, were recent coagulated, yellowish white blood-clot, but downwards from the conorary artery the clot became darker, drier, and finally of a grey-reddish colour. From the lowest layer a fine thread about an inch long passed, to become connected with the new growths about to be described. The aortic valves were not thickened, but the hinder cusp was united to the right and left cusps at their commissures for a short distance. Involving these attachments and the three-cornered part of the wall of the aorta immediately subjacent, were fresh, soft, whitish excrescences, which, with the slight adhesion of the valves, caused a partial stenosis of the aortic orifice. From the apex of one of these vegetations situated between the posterior and right cusps there was a slender prolongation, which was continuous with the fine thread-like process from the clot in the sinus of Valsalva.

Dr. Hammer says he has not been able to meet with an account of such a case in literature, nor has he found that the great clinicists, Bamberger and Kussmaul, with whom he has discussed the case have had any similar experience.—*Lon. Med. Record.*

A New Treatment for Lumbar Abscess.—Osman Vincent has treated eighteen cases of lumbar abscess by the injection (after evacuation) of sulphurous acid. He selects two cases as examples: the first was cured in two months and ten days, the second in twenty days. The other cases were similarly successful, the only difference being in the amount of pain caused by the injection, which was sometimes severe, but often altogether absent, and in the character of the constitutional disturbance, which was either slight or totally wanting. There was one point upon which he asked the opinion of the meeting; this was, that as a rule, the injection went in colorless and came out black; this was most marked in the cases that succeeded best. He concludes as follows: "The sulphurous acid acts on the pyogenic membrane in such a manner as to prevent the formation of pus, and if strict recumbency is made an essential part of the treatment, there is no reason to fear that this dreaded, but, if taken in time, avoidable complication of angular disease, may, by this treatment, be shorn of much, if not all, its previous destructiveness."—*The Medical Press and Circular*, December 26, 1877.—*Medical Record.*

Use of the Actual Cautery in Sciatica.—We learn from *The Lancet* that M. Michel Peter, of La Pitié, prefers the employment of the actual cautery to any other means of treating sciatica. A case is related in which, wet cupping having afforded but slight relief, a number of superficial cauterizations were made by an olive-headed cautery along the course of the sciatic nerve and its divisions, from the trochanteric region to the outer malleolus. About twelve of these cauterizations were made. M. Peter considers this treatment preferable to blistering, because of being enabled by it to follow the whole course of the nerve, whilst it does not produce suppuration or lead to any vesical trouble. It may also be repeated, if necessary, with impunity.—*Med. and Surg. Reporter.*

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science

Issued Promptly on the First of each Month.

Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; J. M. BALDWIN, 805 Broadway, New York, and BALLIERE, TINDALL & COX, 20 King William street, Strand, London, England.

TORONTO, MAY 1, 1878.

HYDROBROMIC ACID IN CEREBRO-SPINAL MENINGITIS.

The many excellent qualities of this acid which render it so useful a member of our therapeutical armamentarium, especially in fevers accompanied with considerable disturbance, makes it incumbent upon us to refer to it briefly in this issue. There has been considerable desultory writing in the journals concerning it during the past few months, all pointing to its excellent qualities as a cerebral sedative, and tranquilizer of the nervous system. It possesses all the beneficial action of the bromide of potassium, without the relaxing effects of the potash, and does not superinduce boils. It does not stimulate as does bromide of ammonium, and may be readily combined with quinine, to produce the hydrobromate of quinine, a most valuable tonic to the nervous system in low forms of fever, etc.

To Dr. Fothergill of London, Eng., belongs the credit of first having separated this acid for use, since which time it has excited considerable interest in medical circles. He gives the following formula for its production in quantities of two quarts: dissolve ʒxj of bromide of potassium in four pints of water, then add ʒxiij of tartaric acid. A precipitate of bitartrate of potash falls down as a sediment, and the hydrobromic acid remains in a clear, bright, almost colorless fluid, possessing an acid taste and the ordinary acid properties, and is possessed of the peculiar therapeutical properties of bromide of potassium, as distinguished from those of any other salt of potash. The dose of this acid, thus prepared, is from half a drachm to a drachm. The smaller dose is usually that employed, except in severe cases. It is the form of bromine best suited for use in medicine. It is commending itself in the South as a remedy in fever, combined with large anti-pyretic doses of quinine. In the *Peninsular Journal of Medicine*, Dr. Wade recommends its use in the treatment of fevers and says "it would seem the acid *par excellence* when there is much cerebral excitement, in pyretic affections."

In cerebro-spinal meningitis, we have a specific contagious virus of a typhous nature attacking with especial virulence the great nerve centres. To treat this successfully requires the highest skill, and the greatest promptitude and aptitude in the selection of remedies. Briefly, we may here summarize the most recent conclusions of the ablest men in the profession as to its treatment, as in this we may best shew the place and power of this acid, as an agent in the treatment of this formidable affection.

First; the hyperæmia of the brain and spinal cord should be relieved by the prompt and repeated application of leeches, until the pulse has fallen to below 100 or within a point at which it ceases to be alarming. Second; hot applications (not cold) are to be applied to the head and spine, with mustard pediluvia. Third; the bowels should be unloaded with an active cathartic. Fourth; to relieve the hyperpyrexia (the temperature being sometimes as high as 104° or even 106°) sedative doses of quinine (say 2 to 5 or even 10 grs.) with ʒj doses of the hydrobromic acid should be administered frequently, and continued until the petechial spots have disappeared from the skin, in doses of course, commensurate only with the hyperpyrexia or excess of heat.

Some prefer a solution of quinine in hydrobromic acid which may be administered in doses of from ½ to 1 drachm of the acid, and 1 to 2 grs. of quinine hourly. The surface of the body should be regularly sponged as in other fevers. It is claimed that this mode of treatment will save over 75 per cent. of such cases, and prevent the distressing sequelæ which sometimes follow, shewing defective nerve power. The leeching is indispensable to relieve the violent head symptoms at the outset, and the antipyretic properties of the quinine are needful; but without the acid neither of these remedies would prove of more than temporary benefit.

The use of calomel has been much lauded by some, but is rapidly falling into disuse as unnecessary. Opium in moderate doses is of great service in the later stages of the disease and assists materially in promoting convalescence.

CONTAGIOUSNESS OF PHTHISIS.

The following notice of a paper by Dr. Tappeiner, read at a meeting of German naturalists and physicians, at Monaco is translated from "*Lo Sperimentale*," of Jan., 1878.—All physicians have observed cases of phthisis rapidly developed in individuals who had for a long time attended on patients in this disease, even when such attendants had not presented any predisposition, either individual or hereditary. Dr. Tappenier believes that the explanation of the fact is to be found in the inhalation of the expectorated matter, scattered in the air by the coughing of patients. In order to test this opinion, he made experiments, by intimately mixing a certain quantity of the sputa in a little water; he pulverized this emulsion by an appropriate process, and subjected some animals to the inhalation of the substance during one or two hours every day. These experiments were made in the Anatomico-Pathological Institute of Prof. Buhl of Monaco. Dogs were selected, as animals presenting the least predisposition to contraction of the disease. Three perfectly sound dogs were put into the pen of the institute; the pen is situate near a window, and is closed in all parts, excepting above, where it receives the external air, through a door which is furnished with a fastening. Some sputa was obtained from a patient in phthisis, a spoonful of which was mixed in a quantity of water sufficient to make of it, a liquid similar to almond milk, and every day pulverization of this was made in the pen during an hour, or an hour and half. At the same time, for the purpose of studying absorption, by the digestive system, of the tuberculous matter, two of the dogs were made to swallow a certain quantity of it, from the same patient.

The whole five dogs had apparently a good appetite, and presented neither cough nor diarrhœa they ate freely, and were cheerful and nimble, without any symptoms of illness, unless a slight wasting and arrest of development. At first view, therefore, the experiments gave a negative result. But the day preceding the first autopsy, a little finely powdered carmine was mixed with the tuberculous liquid, in order to discover how far it had penetrated into the respiratory passages. Two of the dogs subjected to inhalation, and the two which had swallowed the tuberculous mixture, were killed six weeks after the commencement of the experiment. The autopsy of the fifth had been made at the end of three weeks.

The results of the autopsies were surprising. The five dogs presented a general miliary tuberculosis of both lungs, of the liver, the kidneys, and (at least in the two that had swallowed the tuberculous matter,) of the digestive apparatus. The numerous stains of carmine which were seen on the pulmonary surface, showed that the inhaled liquid had penetrated into the pulmonary cells. The microscopic examination made by Professor Buhl established, in the clearest manner, the reality of the lesions.

It has therefore been established experimentally that in the dog a general miliary tuberculosis can be induced from the inhalation, or the ingestion, of the matter expectorated by a phthisical patient. The possibility of contagion of phthisis through the natural channels, may therefore be concluded.

The hygienic and clinical consequences of the experiment are of high importance. And first of all it is to be noted that those dogs continued in apparent sound health, despite the existence of general miliary tuberculosis. It is therefore possible in man a miliary tuberculosis may rest latent during a certain time, and may not become a real and declared phthisis, before the development of foci of inflammation. But that which is of chief importance is the possibility of transmission of tuberculosis from man to man.

In ordinary conditions,—that is to say,—in fresh and frequently renewed air, the matters expectorated, and suspended in the air, may not become sufficiently concentrated to have the power of inducing tuberculous infection. But when a certain number of phthisical patients reside together, and through fear of cold, or of drafts, the place is but little, or not at all ventilated, may we not fear that the expectorated matter will accumulate sufficiently to become dangerous to healthy persons, living in the same quarters? Ought we not therefore, in this regard to take precautions, sometimes neglected, particularly in the wards of hospitals? It is not perhaps prudent to recommend to consumptives, never to swallow the matter brought up from cavities, which may have a deleterious influence on the digestive canal? Finally may not these experiments, in some degree, explain the transmission of phthisis, from husband to wife, or

vice versa, and, consequently the advisability of avoiding conjugal intercourse?

The facts stated by Dr. Tappenier are of great interest, and may explain many points of the important question of the contagion of phthisis."

BRITISH MEDICAL BILL.

A Bill to amend the British Medical Act, is now before the House of Lords in Great Britain, having been introduced by the Duke of Richmond. We have not time to go through the Bill in detail, but we notice the following provisions. We observe in the first place, that the much desired scheme of a conjoint examining board for the three kingdoms is practically abandoned in the present Bill, for the reason it appears that "there is a difficulty in Scotland." Instead of the conjoint board, the Bill presents a scheme for enforcing, or endeavouring to enforce, uniform examinations by each body, by rules to be laid down by the General Medical Council.

It is also provided that every person desiring to be registered under this act shall be possessed of a double qualification, *i. e.* a qualification to practice both medicine and surgery, except in the case of Colonial or Foreign practitioners entitled to be registered under the act, without examination, in the United Kingdom. The conjoint scheme for England, except so far as it applies to the admission of women to degrees and diplomas, seems to meet with approval. The College of Physicians has, at a late meeting, indicated its intention to resist any such bestowal of its titles on women, and the College of Surgeons is likely to do the same thing. The right which the Bill proposes to give to women, to claim examination at the conjoint board is, therefore, likely to thwart the carrying out of this object. The clauses giving greater protection to the profession and the public were much needed, and will be warmly approved. The Bill also has some well considered clauses for the registration of dentists and midwives, which are likely to be acceptable to all.

The clauses which more immediately affect Canadian graduates are those relating to the registration of Colonial degrees. It is provided that the General Medical Council shall admit to registration, upon payment of the registration fee, without examination, such holders of recognized Colonial degrees or diplomas as shall have passed an examination equal to or greater than, that required at the time in the United Kingdom, to entitle to registration. Such Colonial practitioners as are registered under this act shall be entered in a separate alphabetical list; but they have equal rights and privileges with those registered as belonging to the United Kingdom. This is a provision which if it become law, we trust our Medical Council will heartily reciprocate. The provisions of the bill also permit Colonial graduates to practice on lines of steamers sailing to or from British ports, without registration.

Machinery is also provided by certain clauses of the act for striking from the register the names of members guilty of felony, misdemeanor, or "infamous," or "disgraceful conduct in a professional respect." We hope soon to have similar provisions incorporated in our Ontario Medical Act.

THE BILIOUS ATTACKS OF SPRING.

The spring-time is upon us, and with it comes the usual number of complaints of bilious derangements, with lassitude and weakness. It must needs be so, for the body, fortified to endure the excessive rigors of a Canadian winter, has been stuffed with carbon-bearing fats, coddled, pampered and calorified in every way; swathed, of necessity, in winter flannels and heavy garments, which, being still worn, tend to make the perspiration excessive, and also to confine it, causing the body to absorb and re-absorb it, to the great detriment of the system. It is not to be wondered at, therefore, that under these favouring conditions, many diseases are fostered.

By want of proper judgment in the transition from the rigors of winter to the warmth of spring, the machinery becomes clogged, the individual suffers from headache, dyspepsia, irritability of the nervous system, biliousness, depression of spirits, lassitude, &c. And so people go to their daily avocations without zest or spirit, but like the veriest slave driven by the thongs of necessity—filled with morbid feelings of various sorts, and labouring under a peculiar phase of depression of spirits, attributed to the bad weather, and in Canada familiarly called "*the blues*." As an offset to this condition of things, many people resort to

"patent medicines," *ad nauseum*. A little resolution and a few dietary precautions, would preserve health at this time, as well as at others. First with the change from cold weather, there should be the rigorous adoption of moderation in eating. Hearty meals, largely made up of meat diet, tend to surfeit the system and produce bile. The diet should be largely vegetable or fruit, and sparingly of meat. Oatmeal and milk will suit well, but above all, regular attention to the skin is absolutely needful. Alcoholic beverages should be carefully avoided. A few simple rules for the management of the body in spring, judiciously carried out, would in a great measure, prevent the occurrence of these bilious attacks, so common at this season of the year.

ACTION FOR SLANDER.—A case was lately tried at Owen Sound in which Dr. More of Thornbury brought an action against Mr. McKenny, chemist and druggist of the same place, for slander. The slander consisted in the statement, openly and repeatedly made, that the death of a patient under the care of Dr. More was caused by improper treatment, and that he could prove it in a court of law. The doctor requested him on two different occasions to retract and apologize; this he refused to do, and insisted that the case should go to court, and stated that he was prepared to prove the charge.

The doctor had therefore no alternative but to go on with the case. There was not the slightest foundation for the statements made by McKenny, and when the case came up for trial, the plea of justification was dropped, and the defendant pleaded "not guilty." The evidence, however, went to show that he had repeatedly made the statements charged against him. The judge charged very strongly against the defendant, and the jury brought in a verdict for plaintiff with nominal damages, the plaintiff having stated in his evidence that he did not seek damages. The judge granted a certificate for full costs.

It would have a most beneficial effect, if a few more such individuals were brought to book for their reckless and wanton assertions, regarding medical men in the treatment of their patients.

TRINITY MEDICAL SCHOOL—ANNUAL EXAMINATIONS.—The examinations were held at the close of the winter session, and resulted as follows:—W. A. Dafoe, Trinity gold medal; J. D. Bonnar, Trinity silver medal; Chas. Sheard, Medical Faculty gold medal; D. H. Wilson, Medical Faculty silver medal. In the final branches, the following gentlemen obtained certificates of honour:—Messrs. J. M. Groves, J. P. Rankin, A. M. Stanley and J. Dunfield. The following gentlemen also obtained a standing sufficiently high to entitle them to the diploma and fellowship of the School:—Messrs. H. A. DeLom, T. H. Ashby, and A. M. Baines. In the primary branches, A. McDiarmid obtained the second year's scholarship, value $60, and Messrs. Chappell, Welford, Duck, Thurison and Park, certificates of honour. In the first year's examination, Mr. Hatton took the first 1st year's scholarship, value $50, and Mr. Beatty the second 1st year's scholarship, value $30. Mr. Shore also passed this examination.

TORONTO MEDICAL SOCIETY.—A meeting of the medical profession in this city and vicinity was held in the Canadian Institute on the 18th ult., for the purpose of organizing a medical society. Dr. Workman was appointed chairman, and Dr. Graham secretary. After considerable discussion as to the name of the society, and whether it should be a society for Toronto and vicinity, or a Teritorial Division Association, it was decided to adopt the former, and a committee was appointed to draft a constitution and by-laws, and to report at an early date.

DIALYZED IRON HYPODERMICALLY.—A correspondent in the *Med. & Surg. Reporter*, Philadelphia, has been using with great success dialyzed iron hypodermically, in cases of profound anemia with irritability of the stomach. He used Wyeth & Bro's preparation in eight minim doses, gradually increasing to sixteen, three or four times a week. The iron produced very little irritation of the skin, and in no case did inflammation or abscess supervene. In some cases he also saturated a pledget of cotton with about thirty minims of the iron, and introduced it into the vagina where the mucous membrane offers a large surface for its absorption.

PHOSPHOZONE.—This new preparation of the elixir of the hypophosphites which has been named *phosphozone*, is fast gaining favor with the profession.

It was unfortunate that the manufacturers (Evans Mercer & Co.,) chose for it the above name, as it gave it the appearance of a patent nostrum, which it is not. It is a combination of the hypophosphites of iron, soda and lime, with calisaya and other tonics, in the form of an elixir, and is a most excellent nerve tonic. It is easily administered, agreeable to the taste, and very efficacious in the treatment of debilitated conditions of the system. It has proved a most valuable remedy in the treatment of infantile debility, and chronic wasting.

ONTARIO VETERINARY COLLEGE.—The closing examination of the students of this College took place on Thursday, April 4th,—the most successful session that the institution has had.

The following gentlemen received diplomas:—S. G. Anderson, L. P. Chase, J. R. Deacon, F. W Derr, G. Falls, T. Hagyard, C. Hand, H. Heckenberger, G. P. Hinman, J. Humphries, W. Jex, A. Moore, J. McKerracher, J. V. Newton, S. P. Palmer, B. A. Pierce, H. Sutterby, A. N. Smeall, E. P. Smithers, A. R. Stephenson, J. Waddel, L. E. Wheat, G. Theobald. The following gentlemen passed the primary examination:—F. W. Matthews, S. Ottewell.

THE MEDICAL PROFESSION.—In the United States, with a population of 44,874,814, there are 62,383 doctors, being one doctor to every 600 persons. In France the population is 36,100,000; the physicians 19,902, being one doctor to every 1,814 persons. Great Britain, with a population of 32, 412,010, has 19,385 doctors, or one physician to every 1,672 persons. In the German Empire there are 13,686 doctors for a population of 41,060,695 —one doctor to every 3,000. Austro-Hungarian Empire, population 35,904,435, and 14,361 doctors, being one physician to every 2,500 persons. In Canada, with a population of 3,575,577, there are 2, 998 doctors, or one to every 1193 persons.

MCGILL COLLEGE CONVOCATION.—The following gentlemen received the degrees of M.D. and C.M.:—M. Beckstead, R. Bell, J. D. Cameron, A. Chisholm, R. Collinson, D. W. Faulkner, L. A. Fortier, J. R. Frazer, H. C. Gardner, W. B. Gibson. F. S. Greenwood, J. F. Guerin, J. A. Hutchinson, W. H. Howey, J. J. B. A. McCann, J. McCrimmon, M. McCrimmon, J. K. McKinley, E. McNeill, T, W. Mills, M.A., W. J. Neilson, E. W. Setree, D. F. Smith, F. J. Stafford, H. F. Vineburgh, A. D. Webster, J. W. Wright, B.A.

Prizemen.—Holmes Gold Medalist H. F. Vineburgh; best final examination T. W. Mills, M.A.; best primary examination W. R. Sutherland Sutherland Gold Medalist, J. M. Lefevre. Honorable Mention in Primary.—Lawford, J. L. Brown, Imrie, Shaw, Stevenson, Smith, J. Sutherland, Guerd, and J. L. Brown. Junior Class, prize W. L. Gray; Hon. mention, Beer, Joseph, Moore, Harvie, Cormack, Ross, B. E. Mackenzie, Rogers, Heyd, McLain, Struthers and Laurin. Practical chemistry, prize, A. D. Webster.

BISHOP'S COLLEGE MEDICAL SCHOOL, MONTREAL.—The following gentlemen passed the final examination, and received the degree of M.D., C.M., in this University: H. E. Mitchell, "Wood" gold medallist; W. Young, prizeman; A. Ansell, J. W. McDuffie, E. Sabourin, C. R. Bell, J. Sheridan, J. W. D. McDonald, A. Kerry and H. C. Fuller. Primary Examination:—D. Gaherty, prizeman; J. L. Foley, prizeman in Practical Chemistry; R. E. Leprohon, prizeman in Practical Anatomy; H. B. Chandler, F. J. Tetrault, D. W. Houston and A. F. Lalonde, Honorable mention.

MONTREAL MEDICAL LICENSE CASE.—This celebrated case has at last received its *quietus*, the Grand Jury of the Court of Queen's Bench, Montreal, having ignored the bill. It is much to be regretted, that this case, being one of irregularity, not wilful forgery, was not settled long since by the authorities of the college, rather than have it dragged through the law courts, to the disgrace of the profession. We trust it may be a long time, before any charge of a similar character can be laid at the door of any officer of the College, or member of the medical profession in Canada.

LEAVE OF ABSENCE.—Dr. T. S. Covernton, Assistant Superintendent of the Hamilton Asylum for the Insane, has been granted three months leave of absence by the Government, for the purpose of visiting the asylums and hospitals of Europe.

QUEEN'S UNIVERSITY CONVOCATION.—The following gentlemen received the degree of M. D., on the 20th ult.: T. W. Beeman, H. Bennett, Geo, Clinton, H. A. Craig, H. Evans, Wm. B. Kennedy. P. E. Kidd, W. F. Lewis, D. C. Lynch, and Jas. McArthur, B. A.

ATROPINE IN NIGHT SWEATS.—The use of atropine in small doses, has been highly extolled of late in the treatment of night sweats of phthisis, and other exhausting diseases. It is frequently combined with morphine, as in the following:

℞ Atropine .....gr. i.
Morph. Sulph.....grs. viii.
Acid Sulph. Aromat.....ʒ ij.
Aquæ ad.....ʒ j.—M.

Sig. Five to ten drops at bedtime. It has been used in both the Montreal and Toronto General Hospitals in this way, with marked benefit.

PRESENTATION.—Dr. J. C. Mitchell of Clarke, who is about to remove to Enniskillen, was presented with a silver service accompanied with an address by the good people of Clarke. The Dr. made a suitable reply, thanking the friends on behalf of himself and Mrs. Mitchell for the kindness they had received during their residence in Clarke.

WRITER'S CRAMP.—We have just received a circular and blank from Dr. G. M. Beard, of New York, asking for facts relating to the symptoms and history of the disease known as "Writer's Cramp." He would be obliged, if those who are victims of this or analogous conditions would communicate with him, by sending any facts of interest in such cases. Blanks will be supplied on application.

DR. MCINNIS, the new Member of Parliament for Westminster, B.C., has taken his seat in the House of Commons, Ottawa.

BRAITHWAITE'S RETROSPECT FOR 1878.—Any subscriber to the CANADA LANCET who has paid his subscription up to January 1878, can have Braithwaite's Retrospect for the current year, January and July, on remitting $2 to this office.

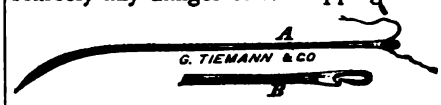
APPOINTMENT.—Dr. E. W. Spragge of Toronto has been appointed as the representative of the University of Trinity College in the Ontario Medical Council.

CORONERS.—J. T. Moore, M.D., of Tilsonburg, to be an Associate Coroner for the County of Oxford.

S. P. Emes, M.D., of Drayton, to be an Associate Coroner for the Co. of Wellington.

New Instruments.

AN OPEN EYED NEEDLE.—The accompanying cut represents a new open eyed needle devised by Dr. Shrady, of New York, for use in surgical operations. As will be seen the eye is open, in such a peculiar way as to admit a loop of thread being easily inserted, and at the same time there is scarcely any danger of its slipping out. The projecting shoulder in front of the eye effectually prevents the hook-like portion of the eye from catching or tearing the tissues as the needle is pulled through. One of the most troublesome things in a protracted surgical operation is the frequent threading of needles. The above mentioned form of needle will be found therefore, a great desideratum, and seems also well adapted for general use.



Books and Pamphlets.

RERORT ON HEATING AND VENTILATION OF THE JOHN HOPKIN'S HOSPITAL, BALTIMORE. By John S. Billings M. D., Surgeon U. S. Army.

The subject of ventilation of buildings, whether large or small, public or private, is one on which very vague or unsettled ideas seem to prevail, not merely among the community at large, including alike the proprietors and tenants of houses, but, what is still more lamentable, a very considerable proportion of architects and builders, who are regarded as duly qualified to make every requisite constructional provision for the convenience, comfort, and good health, of the future occcupants of their erections.

Dr. Billings has very properly discussed the subject of ventilation in strict affinity with the other, in this country indispensable provision for comfort, and health,—*heating*. All who have had any experience in the superintendence of public institutions, in which large numbers of residents are congregated, whether in a healthful or a diseased condition, know very well that the perplexing problem of heating and ventilation is, so to combine the two processes that they shall work harmoniously, and that the one may not be impaired by the

other. It is a very easy matter in any house, to introduce a free supply, from the outside, of fresh air, even in calm days, through open windows and doors; and in mild or warm weather, this plan is both the cheapest and the most effective means of ventilation; but whatever the advocates for sleeping, in all weathers, in rooms with all windows open, may declare to the contrary, it is a very unadvisable indulgence in Canada, where the thermometer comes down to nigh zero, and a fresh wind is blowing. For our part we can see very little difference between being killed by foul air, or shivered to death by too much cold air.

In ordinary dwelling houses, no better means of ventilation can be provided than the old-fashioned cheerful *grate* fires. These vacuum creators never fail to do their work thoroughly, despite the closest fitting doors and windows; unfortunately, however, they are regarded by many proprietors and tenants with disfavour, because of the expense of keeping them in operation—all heat expended in producing chimney draft, is held by such persons, as waste of fuel, and their great study is not to carry off the heated foul air, but to retain it—as the question here lies between the cost of a little extra fuel, and doctors' bills, and our profession is much overstocked, our readers may pardon us for avoiding enlargement on this subject.

We are pleased to see that Dr. Billings has given, deservedly in *italics*, a *coup de grace* to a delusion which has long obfuscated the brains of quack ventilators. He thus writes:—"I must also insist upon the fact, well known to all physicists and chemists, but usually unknown to pseudo-scientific writers on ventilation, that carbonic acid is equally diffused throughout the room; it does not collect near the floor, and the fact that its specific gravity is greater than that of air at the same temperature, has nothing what ever to do with questions of ventilation in a hospital."

Every medical tyro, who has been taught the law of diffusion of gases, thoroughly understands this fact; and yet it has fallen to our lot to be sometimes pestered with the inane deliverances of stilt-walking officials, pitch-forked into positions of supervision for which their chief, if not sole, qualification, has been,—well, let that pass; everybody now-a-days knows that knowledge is *not* power, and that the possession of it, dissociated from political toadyism, or sycophantic subserviency is about the most hopeless recommendation to executive approval which any candidate can offer. Dr. Billings has sufficiently discussed the relative merits of the several modes of ventilation which are now availed of in hospitals and other institutions. We should be very glad to be able to give an extended resumé of his valuable experiments and observations, but this would be impossible in an article so necessarily brief as a journalistic notice.

Before, however, closing this notice, we feel called upon to express our demurral to one passage, which, we fear, may be, by governors or trustees of large public institutions, wrested from the context, and most dangerously misapplied. It relates to the numerical occupancy of sick wards, or other apartments. The words are:

"Whether a man has 250 or 2500 cubic feet (of space) the amount of fresh air required for dilution to a certain standard, will be the same after a very short time."

Now if we felt assured that in an overcrowded hospital ward, this *requirement* would be always secured, or that it *could* be secured without imminent peril to the occupants, we might not deprecate even the dislocation of the above passage; but who does not know that overcrowded wards are always defectively ventilated, and that it is little short of murderous to drop the most casual phrase on the harmlessness of overcrowding, in the hearing of public officials, whose main study is to exhibit their own efficiency by displaying in figures of dollars and cents, their high economic merits.

PATHOLOGICAL REPORT OF CASES IN THE MONTREAL GENERAL HOSPITAL FOR THE YEAR ENDING MAY 1st., 1877. By Wm. Osler, M. D. Prof. of Physiology, McGill College. Montreal: Dawson Bros. Toronto: Willing & Williamson. Price 75c.

The author states in his preface that one hundred autopsies have been entered in the post-mortem book of the Hospital, for the year ending May 1st 1877. In the report, brief summaries are given of the cases of practical and scientific interest, together with a synopsis of the clinical features. The cases are grouped under the various organs affected, as the osseous system, circulatory system, respiratory system, gastro-intestinal system, genito-urinary system, etc. Some of the autopsies are of exceeding interest, and we must congratulate the author upon

the care and pains-taking labor bestowed on his work, and trust that he will continue to give to the profession annually a report of his labors in the autopsy room. Many of the post-mortem appearances have been carefully examined by the microscope, and a full report is given where the cases were of sufficient importance. The work is dedicated to Dr. Bovell, Emeritus Professor of Pathology in Trinity Medical School.

A Compend of Diagnosis in Pathological Anatomy, with directions for making post mortem Examinations by Dr. J. Orth, Berlin. Boston: H. O. Houghton & Co. Toronto: Willing & Williamson.

The above work is one which was very greatly needed, for although much information may be obtained from the existing works on pathological anatomy, yet they are all too diffuse for general use. The author gives practical details and comprehensive directions for making *post mortem* examinations, and for recognizing pathological changes and establishing the diagnosis. In the directions for the performance of autopsies, the new Prussian regulations for forensic physicians have been closely adhered to. In the matter of diagnosis both the gross and microscopic appearances are described. The work represents to a large extent the teachings of Virchow, whose assistant the author was for several years. We can confidently recommend this work to those who require a guide in the performance of *post mortem* examinations.

The Physician's Day-Book and Ledger. Published by Hart & Rawlinson, Toronto.

This is a most convenient system of book-keeping for medical men. The day-book is ruled for convenient entry from day to day. The ledger is ruled for the entry of accounts for seven years, and is so arranged that one can see at a glance what the amount of indebtedness is, and the amounts paid from time to time. It is without doubt, the most convenient system of book-keeping we have yet seen.

Revelations of Quacks and Quackery. A series of letters by "Detector," published in the Medical Circular by F. B. Courtenay: Seventh edition, London: Balliere, Tindall & Co. Toronto: Clougher Bros.

Pneumo-Dynamics. By G. M. Garland, M. D. Harvard University. Boston: H. O. Houghton and Company.

A Satchel Guide for the Vacation Tourist in Europe.—A compact itinerary of the British Isles, Germany, Holland, The Rhine, Switzerland, France, Austria, and Italy, with maps. Seventh Edition. Boston: Houghton Osgood & Co.

This is a very neat and comprehensive little work, and an admirable tourist's guide. To those who intend visiting places of interest in Europe during the coming summer we heartily recommend this book. Price $2.00.

On Hematuria as a Symptom of Disease of the Genito-urinary Organs. By O. Hoff, M.D., San Francisco. Philadelphia: Lindsay and Blakiston.

Beitrage zur pathologischen Anatomie Des Auges. By Dr. Adolf Alt, Trinity Medical School Toronto.

The Relations Existing Between Eczema and Psoriasis. By Robert Campbell, M. D., Demilt Dispensary, New York. New York: G. P. Putman's Sons.

On the Recognition and Management of the Gouty State in Diseases of the Skin. By L. Duncan Bulkley, A. M., M. D., Demilt Dispensary, New York. New York, G. P. Putman's Sons.

Paracentesis, Aspiration, and Transfusion. By S. Fitch, A. M., M. D. Edin., Halifax N. S. From the Transactions of the International Medical Congress, Philadelphia, 1877.

Copaiba as a Diuretic.—In the case of Mme. Titiens, Drs. Spencer Wells and Howell failing to produce diuresis by the ordinary means, found copaiba, in ten-grain doses to succeed remarkably well.—*Lancet.*

Births, Marriages, Deaths.

At Bryanston, on the 23rd of March, the wife of J. L. McDiarmid, of a son.

In Brantford on the 23rd ult., Levi Secord, M.D., of Bright, Ont., to Emily C., second daughter of Wesley Morrell, Esq., of Brantford.

In London, Ont., on the 27th March, G. H. Case, M.D., to Lella Edith, youngest daughter of John Blackburn, Esq.

At Hamilton, on the 29th of March, of pneumonia, John Bell, Esq. A.M., M.D., of Montreal, aged 33 years.

THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

VOL. X. TORONTO, JUNE 1ST, 1878. NO. 10.

Original Communications.

REMARKS ON OVARIOTOMY.

WITH AN APPENDIX.

CONTAINING THE HISTORY OF SEVERAL TYPICAL CASES MET WITH IN PRACTICE.*

BY J. W. ROSEBRUGH, M.D.,

PRESIDENT OF THE MEDICAL FACULTY OF THE HAMILTON CITY HOSPITAL; LATE PRESIDENT OF THE HAMILTON MEDICAL AND SURGICAL SOCIETY &C.

(Continued from page 262.)

APPENDIX.

CASE I.—*Ovarian disease, of four years duration.—Ovariotomy—Unilocular cyst.—Pedicle secured by the Extra-peritoneal method.—Recovery.*

M. H., Canadian, aged 23, single; a smart, active, dark-complexioned, healthy looking young woman; but presents the appearance of a pregnant female at full term. Has always enjoyed good health; menstruates regularly; and her appetite and digestion are good.

The enlargement commenced "low down" in the pelvis at least four years ago, but cannot remember that it was on one side more than on the other, when, however, she became very large, the left side was fuller and more uncomfortable than the right. Her size, she is sure, varies. The abdomen measures 35 inches at the umbilicus, and 15 from the ensiform cartilage to the pubes. It is oval and convex, perfectly smooth under palpation, dull on percussion, and yields fluctuation in every part of the enlargement. There is neither hardness nor tympanitis at any point, even on change of position from side to side. The uterus is normal both in size and position. Neither bulging nor fluctuation can be elicited through the vaginal walls.

Diagnosis: ovarian tumour—unilocular.

Ovariotomy.—Four days after the cessation of the menses, the patient having been well prepared and settled in a cheerful well appointed room, was chloroformed, and an incision, four inches in length, was carefully made on a groved director, in accordance with the method recommended on page 227. On opening the peritoneum a small quantity of ascitic fluid escaped and the white, glistening wall of the cyst came into view. No adhesions being within reach of the fingers, a large steel sound, warmed and disinfected, was also passed carefully around the tumour without meeting with any obstruction. The patient was then turned on her left side when the tumour immediately bulged into the wound. It was now seized near the upper end of the incision by a pair of strong, long-toothed forceps and firmly held *in situ* while a large trocar was plunged into the cyst. Three gallons of thin water colored fluid quickly flowed away through the canula, and as the cyst collapsed it was easily brought through the wound by means of gentle traction with the forceps. The cyst was found to have sprung from the anterior edge of the left ovary and the corresponding portion of the broad ligament. The right ovary was in a normal condition. The pedicle which was about two inches wide and of moderate length was secured by Keoeberle's clamp, but as this did not constrict the stump satisfactorily, a ligature was also used and the stump mummified by the actual cautery. Not a drop of blood nor cyst fluid had escaped into the peritoneal cavity, and as there was no hemorrhage along the course of the abdominal wound it was immediately closed by three deep, and four superficial, silver wire sutures. A light compress of lint saturated with carbolized oil was placed over the wound, then several layers of cotton-batting, two or three napkins and a wide bandage completed the dressing. The patient was then placed in a good warm comfortable bed, with the shoulders and thighs raised for the purpose of diminishing the tension upon the abdomen. Forty drops of laudanum with fifteen of aromatic hartshorn were given in a desert-spoonful of cold water; pulse 84; head cool, but somewhat excited and flighty—the effect of the chloroform. The cyst and contents weighed 27 pounds; the patient slept nearly all the afternoon and evening, waking occasionally, and vomiting three or four times. Had nothing but small pieces

*Read by title at the meeting of the Canada Medical Association held in Montreal, 12th and 13th Sept., 1877.

of ice to cool the mouth and allay the thirst. At 8 P.M. the pulse was 110 and the reaction moderate. Complained of a dragging pain at seat of pedicle. The bladder was empted every eight hours with the catheter. Administered an anodyne injection per rectum (tr. opii. ʒj. warm thin starch ʒj.) every four or five hours to secure freedom from pain. During the first night she vomited once only, and not afterwards. Had nothing by the mouth excepting ice to suck until the evening of the third day, when she was allowed fresh milk and lime water, iced, in equal parts, a table spoonful every hour. During the second night she had some fever, pulse 120, lasting about five hours, followed by a slight perspiration and a "show" of the menses. The menses increased in quantity and continued three days, notwithstanding that the operation was performed the fourth day after their normal cessation. She had no pain after the second night, and the anodyne injections were omitted. On the fourth day light nourishment was allowed in increasing quantites, and from this time her convalesence was continuously progressive.

The use of the catheter was discontinued after the fifth day; the wound healed by the first intention; the superficial sutures were removed on the fifth day, and the deep ones on the ninth; the clamp came away on the 16th; and on the 21st, she left for home. About two years subsequently she was married to a builder of this city, and in fifteen months thereafter I had the pleasure of delivering her of a fine, large, healthy-looking son.

CASE II.—*Unilocular Ovarian Tumour.—Ovariotomy.—Adhesions.—Ligatures.—Pedicle secured by the Extra-peritoneal method.—Drainage.—Recovery.*

Mrs. K., aged 25 years, married, the mother of three children—none of them living, a light complexioned, fair-haired, delicate appearing woman, under the care of Dr. O'Neil, of this city, At the birth of her last child (19th, Nov. 1875,) her medical attendant mentioned that she had an enlargement of the abdomen, which might be caused by an ovarian tumour. About five weeks after the confinement she was taken very ill, and the same medical gentleman attended her for an attack of "inflammation," when he said the enlargement still existed. Subsequently the case passed into the hands of Dr. O'Neil, and it was in consultation with him that I attended her. The tumour was rather obscure as to its nature, rising nearly to the umbilicus. It was very protuberant anteriorly, projecting, as it were, from the pelvis as in pregnancy between the fifth and sixth months. It was dull under percussion, and fluctuation was very obscure. (I have no note of the measurements.)

Some weeks later another examination was made. The tumour had somewhat increased in size, and fluctuation was more distinct. The uterus was found high up behind the lower margin of the tumour, the sound passing in two and one half inches. The tumour was then tapped with a hypodermic syringe and about one drachm of amber colored fluid withdrawn, which did not coagulate spontaneously.

Diagnosis. Ovarian tumour; ovariotomy recommended.

Ovariotomy was performed at 11 A.M. on May 16th, 1876. The tumour proved to be monocystic. On being tapped the contents flowed out freely and the cyst was speedily emptied, and easily brought through the incision, which was about five inches in length. The omentum was found adherent to the cyst in several places, and after being separated, bled so freely that we were obliged to have recourse to several silk ligatures to arrest the hemorrhage. The ligatures were all cut short and left in the peritoneal cavity. As some oozing of serum still continued a drainage-tube was placed in the wound, with the lower end down into Douglas's cul-de-sac. The pedicle being of moderate size and sufficient length, it was secured by a Spencer Wells's clamp, and thus treated by the extra-peritoneal method. At the conclusion of the operation (according to the notes carefully taken by Dr. O'Neil) the pulse was 78, and gradually increased in frequency during the afternoon and evening until it reached 110 per minute, the highest number recorded during the convalescence. The temperature rose, the same evening, to 101½, and with one exception when it reached 102, this was the highest temperature recorded. In order to keep the patient at rest and free from pain two grains of pulv opii were administered about every 6th hour, during seven or eight days. The convalescence was progressive from the time of the operation. During the first two days a great quantity of serum oozed from the abdominal cavity, coming out around the drainage-tube and pedicle until it saturated the folded sheets &c., below the patient. On the 24th (the 9th day) the

pulse increased to 108, and the temperature to 102. Upon examination the drainage-tube was found full, and turning the patient on her side four ounces of very offensive pus flowed away. The pulse, the same evening, fell to 85, and the temperature to 99⅘. During the following three days, the patient was morning and evening turned on her side, and each time a small quantity of pus was discharged, and on one occasion some "fleshy pieces". No disinfectant syringing was resorted to. The sutures were removed, some on the 9th, the remainder on the 13th day, and with the last stitch the clamp fell off. The patient was soon up and about, and from time to time, reported herself as feeling "as well as ever."

CASE III.—*Multilocular Ovarian Disease.— Ovariotomy.—Pedicle treated by the Intra-peritoneal Method.—Partial Enucleation.—"Tied and Dropped."—The Drainage-Tube.—Fever.—Recovery.*

MISS N., from the county of Brant, (through the kindness of Dr. W. Corson of Brantford,) consulted me on Nov. 1st, 1877. Her health has been rather delicate since her childhood, but never had any severe illness. Her digestion had always been good until within three or four months, when she noticed that she felt full and uncomfortable after meals, this caused her to seek the advice of Dr. CORSON, who discovered that her abdomen was considerably enlarged, due to the presence of an ovarian tumor.

For about a year she had been aware that she was gradually becoming stouter, and at Christmas (1876) her dressmaker remarked it; but this did not occasion any surprise, on the contrary, she rather congratulated herself, as she presumed she was "growing out" of her former delicate condition.

Present state.—Of medium size, sandy complexion; fairly well nourished. All the organs and functions of the body appear to be in a normal condition. Her friends remark that she does not look so well in the face as she did two or three months since. *Physical signs.*—In the standing position she appears very much like a woman seven months gone in pregnancy. The tumor is not very rotund and prominent; it is rather flat, but entirely fills up the hypogastric, both iliac, and the umbilical regions, extending upwards three inches above the navel. Under pressure it resists like a full sac, but does not feel solid like a fibroid. The whole surface yields dullness under percussion, and deep-seated fluctuation is obscurely elicited, with the exception of a large portion occupying the right iliac region, where the tumor is hard and uneven. Simpson's sound passes 2½ inches into the uterus, in the left lateral direction. The tumor is felt by the finger, on the right side of the uterus. The measurements are as follows:

Girth at umbilicus	33	inches.
From umbilicus to ens. cartilage	5¾	"
" " " pubes	5¾	"
" " " right a.s.s. process	7¼	"
" " " left a. s. s., "	6	"

Tapped with a hypodermic syringe, the cyst yields a thin straw colored fluid, which is not spontaneously coagulable.

Diagnosis. Ovarian tumor,—multilocular, springing from the right ovary.

MISS N., having been in the city several days, occupying her "quarters," getting accustomed to her lying-in room, and other surroundings; the menses having ceased five days since; and being now in all respects in a pretty good and hopeful condition the operation was proceeded with.

The patient having been chloroformed, and the abdominal section five inches in length made in the usual way, the tumor was readily brought into view; the patient having been turned on her left side, the cyst was tapped with an ordinary trocar, and the contents being thin, it was rapidly emptied of about twelve pints of thin straw-colored fluid. The tumor was then brought through the incision without further enlargement, and found to be composed of an aggregation of small cysts, somewhat resembling the honey-comb, filled with a similar fluid to that of the parent cyst. The weight of the tumor and contents was eight pounds. The pedicle was very short, and had to be enucleated (according to Dr. Miner's process) several inches from the tumor, before sufficient length was obtained to permit of manipulation. The sound part was then ascertained to be too short for the application of a clamp, and recourse was had to "tying and dropping." A double silk ligature was passed by means of a large needle through a thin part near the centre of the pedicle, and each half first secured separately, and then as an extra precaution one of the ligatures was tied tightly around

the whole. The oozing enucleated portion was then amputated by the actual cautery.

The pedicle, contrary to the diagnosis—based upon the fact that the uterus was in the left side of the pelvis, while the lower part of the tumor was felt on the right side—was found to have sprung from the left ovary. This anomaly was accounted for, when it was found that the solid portion of the tumor had sent a projection downwards into the pelvis which had crowded the uterus over to the left. As serum continued to accumulate in the pelvic cavity, after it had been thoroughly sponged, drainage was provided for, by inserting a tube, before closing the wound. After this was accomplished in the usual way, the patient was placed in a good comfortable bed with warmth to the feet. She quickly rallied from the chloroform, and as she complained of some pain, 40 drops of laudanum with a little brandy and iced water were administered. The pulse was now 72 and the respirations 38. An hour subsequently the pulse was 76, and in two hours 80. As she still complained of pain, 50 drops of laudanum were given in a little brandy and iced water. She is now thirsty and is allowed ice to suck, but nothing to drink.

At seven o'clock the same evening, reaction was found thoroughly established. Pulse 100; respiration 22; skin warm and moist; feels "too warm," notwithstanding the hot bottles and some of the bed clothing had been removed; vomited a small quantity, once only, this was about 4, p. m. Took away (per catheter) about seven ounces urine. Said she felt some pain, and was given another dose of laudanum with brandy and water, iced.

11,30 P.M.—Has not vomited since 4, p.m.; has slept a couple of hours; feels but very little pain; pulse 96; respiration 20; temperature 100½°F. Took away six ounces of urine, gave enema beef essence ʒij, tr opii ʒss, brandy ʒij. To have nothing excepting ice by the mouth.

25th, 8, A.M.—Had a very good night; vomited once (this morning) "a little greenish fluid"; slept nearly all night, waked occasionally and had a piece of ice; pulse 82, respiration 18, temperature 99½°. Took away the urine, and repeated the enema.

1. P.M.—Has been comfortable during the forenoon, vomited again about 8·30, but not since, pulse 88, respiration 16, temperature 100½°. Took the urine, and repeated the enema. As the drainage-tube was nearly full, it was emptied by sucking ʒiij of reddish fluid out, with the bulb of a syringe having a small flexible tube attached. The tube was then washed out by injecting a small quantity of warm water, slightly carbolized, and containing a few grains of table salt. This solution was immediately withdrawn by means of the syringe, and the process was repeated several times until the fluid returned clear.

6 P.M.—Has not vomited since morning; slept about two hours; pulse 96, respiration 16, temperature 101½°; took away the urine; repeated the enema; withdrew about ʒiij reddish serum from the pelvic cavity, and washed it out as previously.

11.30 P.M.—Has slept considerable since seven o'clock; feels comfortable; skin moist; no pain; no headache, but states she feels "hot," pulse 106, respiration 17, temperature 101°. Took away the urine, and repeated the enema; she has had thus far nothing by the mouth except ice.

26th, 8 A.M.—Had a comfortable sleep up to three o'clock this morning; since that time she has been restless with a desire to urinate, has not vomited since yesterday morning, and the stomach feels settled, skin moist, pulse 102, temperature 100°. Took away ʒiij urine, and repeated the enema. Brought away ʒii reddish serum and washed out the drainage-tube.

6 P.M.—Nurse states, patient has had a fever since 1. p.m. The skin is dry and hot, pulse 123, respiration 17, temperature 101⅘°. Removed the urine, and gave per enema, mutton broth ʒvj, brandy ʒss, tincture opii. ʒss., sulphate of quinine grs. xv. Ice to the head.

8.30 P.M.—Has slept soundly, and perspired freely; as soon as she awoke the perspiration ceased and the skin again became hot and dry; begs constantly for ice when awake; pulse 123, respiration 17, temperature 101°. Repeated the last enema, with the exception of the opiate; continued ice to the head.

MIDNIGHT.—Has rested well, and slept the most of the time since 9 p.m., no pain, skin moist, pulse 126, respiration 17, temperature 101⅘°. Took urine, gave mutton broth, per enema; and by mouth, sulphate quinine, grs. xv, brandy ʒij., iced water, ʒ iij., continue ice to the head, and ice to suck.

27th. 8 A.M.—Has had a good night, and slept

the most of the time, but when she wakened occasionally, wanted the ice as usual. The ice was continued to the head during the whole night. The fever gradually abated towards morning; *she is now free from fever.* The temperature is normal, (98¼°.) Pulse 100, respiration 17. Did not vomit the medicine, and at 4 a.m., had a little brandy and iced water; complains of noises in her head, (owing to the quinine), and inability to see well. Permitted her to have a little black-tea, with cream and sugar, which she relished, and as the stomach now begins to crave for food, she is to be allowed some fluid nourishment by the mouth. Washed out the drainage-tube with the syringe, but only two or three pieces of *debris* came away with the injected fluid. Gave eight grains of quinine in a little iced brandy.

1 P.M.—She appears much better, has neither fever nor pain. Passed her urine without the aid of the catheter. Pulse 95, respiration 17, temperature 98½°. The ice to the head has been omitted since morning. Has had no opiate since yesterday evening. Has taken some egg and milk containing a little brandy.

10 P.M.—Continues to improve, she is cool, moist, and perfectly free from fever. Pulse 85, respiration 14, temperature 97½°.

28th, 9 A.M.—Still improving, states she feels hungry. The menses came on this morning. As flatus was becoming troublesome, the bowels were relieved by an enema of warm water.

During the next few days the drainage-tube was frequently emptied and syringed out; on one occasion half an ounce of offensive pus was brought away, and several times *debris* of broken down tissue. But from the above date she continued to improve, with the exception of the 7th, 8th, and 9th, days, when she did not feel so well, as considerable suppuration occured in the sheath of the right rectus muscle. This, however, soon ceased, and her recovery was rapid.

REMARKS.—The chief interest, of this. case, centres in the fact that the operation was followed by a *fever,* unaccompanied by any inflammatory symptoms whatever; and that this fever was controlled and arrested by the prompt administration of quinine, in large doses, bringing the temperature down from nearly 102° to below the normal (97½°), within 24 hours. The case also demonstrates the usefulness of the drainage-tube, through which the pelvis was cleansed from decomposing materials, and septic absorption was thus probably averted.

CASE IV.—*Multilocular Ovarian Tumor.—Extreme condition.—Tapping.—Rectal alimentation —Peritonitis.—Ovariotomy.–Extensive adhesions. —Pedicle ligatured and secured with the wound.— Exhaustion.—Fatal result.*

MRS. MCA, aged 42, married, the mother of six children, consulted me on March 10th, 1872, for an enlargement of her abdomen. Ten months previously she first noticed "a swelling low down on the left side," which increased rapidly during the next three months, and this she concluded was due to pregnancy. Her size then remained stationary for some time and she became doubtful as to the nature of her condition. During the winter months however, the enlargement again gradually increased. Upon examination, the abdomen presented the appearance of an eight months pregnancy. It was protuberant, irregularly uneven, and everywhere dull under percussion. Fluctuation was very distinct at the upper and right side of the tumour, while the left side and lower portion were hard and unyielding.

I informed the woman and her husband that I believed her enlarged condition was due to the presence of an ovarian tumor of a compound nature; and proposed a consultation for the purpose of making a more critical examination. This they considered, postponed, and declined; and shortly afterwards placed the case under the treatment of a notorious itinerant charlatan, hailing from Buffalo.

On Feb. 3rd 1873, eleven months from the former time, I was again requested to visit the patient. They then informed me that the charlatan had continued his treatment three months with positive assurances that he would cure her of the "dropsy," but finding she was losing flesh and strength she discontinued his treatment. In September having contracted a cold, she became very poorly and took to the bed, where she had been confined all winter. While her health has been failing the tumour has been increasing in size, so that now it completely fills up the abdominal cavity, pressing up against the liver, stomach, spleen and diaphragm so as to seriously obstruct the respiration. The girth of the abdomen at the umbilicus is 46¾ inches, and measurement from the ensiform cartilage to the pubes is 26 inches. She is now in an extreme condition;

pulse feeble; respiration 42; face pallid; lower extremities very œdematous; and vomiting frequently. She begs me to do something quickly for her relief. "You may do anything", says she, "for I can't live". I explained to her that she was too weak to bear the operation of ovariotomy, and that, under the circumstances, the only procedure admissible was that of tapping. This she then urged me to do immediately. Therefore during that afternoon assisted by Dr. Malloch, I performed that operation with a common, large sized trocar, in the median line midway between the umbilicus and symphysis pubis. The contents, which came away very slowly, were of a dark color, and of the consistance of syrup. When this cyst ceased to flow it was evident, from the enlargement and fluctuation still existing above the umbilicus, that one or more cysts remained to be emptied. Withdrawing the canula, a long curved trocar was directed, through the same orifice, obliquely upwards and pushed into another cyst, the contents of which proved to be thicker and more gelatinous than those of the former. These resembled soft soap in consistence and appearance.

The contents of the cysts being so tenaceous, notwithstanding the discharge was expedited by pressure with the hands on either side of the abdomen, two hours were occupied in emptying them. The matter thus discharged measured twenty two quarts, or five and one half gallons. The operation of tapping was very exhausting in the patient's weakened condition, but nevertheless as the size of the tumor was diminished, she several times expressed herself as feeling much relieved and the pale anxious *face* improved in color and appearance. The respirations decreased to 26 and the pulse to 90. The tumor was now reduced to about the size of, and felt very much like, the womb containing a large placenta after child-birth, but owing to adhesions as we presumed, it could not be pressed down into the pelvis.

The vomiting which had been so distressing previous to the operation, persisted for the three subsequent days, notwithstanding the fact that we administered neither anæsthetic nor medicines. During this time nothing but morsels of ice could be taken into the mouth, and for two weeks life was sustained by rectal alimentation. Enemata of beef essence, and other nutritive materials, were administered in quantities of about two to four ounces at a time, every three or four hours. At the end of a fortnight her stomach began to bear a little milk and lime water, and by and by, two or three raw oysters sprinkled with lemon juice, and other light easily digested food. On the 25th of this month she had a sharp inflammatory attack, attended with acute pain in the right side, between the ilium and the liver, which fortunately was alleviated in a few hours. From that time she slowly improved, and with the improvement came an increasing desire to have the tumor removed. At each occasional visit during the month of May, she urged me to make up my mind to perform ovariotomy. During this month she had been up and about the house, much improved, but still weak and pale. The cysts had been gradually refilling so that she now measured 40 and 20 inches respectively, instead of 46¾ and 26 previous to the tapping.

Keeping in mind the existence of strong adhesions and her unfavourable condition, I explained to her and her friends the great danger and uncertainty of the operation under the circumstances. To this she quietly remarked that they fully understood all that, and again calmly argued that she could live but a short time longer if the tumor were not removed, and said she ardently wished that this should be attempted.

Seeing that the hot weather was fast approaching, and it being more than probable that she would not survive the summer months in that condition I determined to yield to the patient's solicitations and make the attempt to remove the tumour.

Accordingly on June 3rd 1873, ovariotomy was with difficulty, accomplished. Chloroform having been administered, the abdominal walls being thin, the tumour was quickly exposed through an incision about six inches in length, which was afterwards lengthened to eight inches. On attempting to pass a couple of fingers between the tumor and abdominal parietes firm adhesions were found in every direction. These as far as they could be reached were slowly separated with the fingers. The patient was then turned upon her left side and the tumor tapped with a large trocar and canula, improvised for the occasion, but as the contents were thick and came away very slowly, a free incision was made into the cyst, with a bistoury when the thick gelatinous matter escaped rapidly. The tumor,* was then

*The tumor, when laid open, after removal was seen to consist of one large cavity surrounded by an aggregation of small cysts in its walls, and bore evidence of broken down cysts in its interior.

slowly withdrawn through the incision when two broad bands were brought into view. One of these was the pedicle reaching from the right ovary to the superior part of the tumor, while the other —a very broad band proved to be the bladder adherent by its posterior surface and elongated upwards. Considerable difficulty was experienced in separating the adhesions between the bladder and the tumor.

A piece of whip-cord was tied around the pedicle and the tumor excised; a loop of the whip-cord served for a convenient handle with which the pedicle was held by an assistant until it was properly secured. Oozing of bloody serum continued from the ruptured adhesions, and it was some time before the abdominal walls could be closed. The pedicle was securely ligatured with whip-cord, at a suitable length from its root, and transfixed in the lower part of the wound, by a large needle passing through the centre below the ligature. The abdominal cavity having been very carefully sponged, the wound was closed with silver wire sutures and dressed in the usual way. The patient was then placed in a comfortable bed, and an anodyne administered per rectum. She rested very well that night; remained very quiet; did not vomit; complained of nothing, and received small pieces of ice when they were put into her mouth. The next day it was apparent that she was not rallying from the effects of the operation, and, notwithstanding the efforts made to revive her sinking powers, she gradually failed until she quietly and easily passed away about nine o'clock in the evening.

Thus ended what seemed a hopeless undertaking; but cases apparently equally hopeless had recovered, and as my patient urgently requested that the attempt should be made, I was unwilling she should be left to her fatal disease without an effort being made for her rescue.

CASE V.—*Multilocular Ovarian Tumor.—Peritonitis.—Obstruction of the Bowels.—Ovariotomy. —Adhesions to Omentum.—Clamp.—Drainage. —Septicæmia.—Recovery.*

Mrs. W., widow, aged 40, sterile, came from Ohio, and was admitted to the Hamilton City Hospital under my care June 10th 1876. States that she has never been a strong person; has had a cough several years; catamenia have been regular; never has been pregnant; four years ago had an attack of pneumonia, which lasted ten weeks; last summer had typhoid fever and was ill five weeks. Her husband died in February last, and immediately after his death she was taken with nausea and vomiting, which continued about two months, at the same time she noticed that her abdomen was enlarging rapidly and she did not know but that she might be pregnant.

Present state.—She is of medium size, sallow complexion, emaciated, feet and ankles œdematous, abdomen considerably enlarged and presents the appearance of a seven months pregnancy. Skin cool; tongue coated brown; constipated; pulse 106; temperature 99; respirations 24 to 28, irregular.

Physical signs.—The abdomen is rotund, a decided protuberance existing anteriorly, and very little flattening out by sagging of fluid to the flanks. Under palpation the tumor resists like a full sac. The fluctuation elicited is of a deep-seated character, and can be made out over the whole tumor, with the exception of a space of about four inches in diameter, situated midway between the umbilicus and right anterior superior spinous process of the ilium; this region yields the sensation of hardness under percussion, and in it she has suffered severe pain for three or four weeks. By vaginal and rectal touch the lower margin of the tumor can be felt and obscure fluctuation elicited. The uterus lies high up behind the tumor, and measures the normal two and a-half inches. Simon's recommendation of examining the tumor posteriorly by means of the hand in the rectum was not enforced.

The measurements were as follows:—

Circumference of abdomen at umbilicus	32½ inches.
From ensiform cartilage to pubes	15 "
" umbilicus to pubes	7½ "
" " " ens. cartilage	7½ "
" " " r. a. s. s. process	7½ "
" " " l. a. s. s. "	7½ "

The tumor was tapped with the hypodermic syringe, and about half a drachm of thick syrupy, straw-colored fluid withdrawn. This was not spontaneously coagulable. It was subsequently examined by the microscope, but the presence of the disputed cell was not discovered.

Diagnosis. Ovarian tumor which is probably polycystic.

On the afternoon of the 13th she was suddenly

attacked with a sharp lancinating pain in the solid portion of the tumor to the right of the umbilicus, which rapidly extended over the whole abdominal region, accompanied with vomiting, fever, and a frequent pulse. In the course of two hours the pulse ran up to 140, became small and thready, and the vomiting very frequent. The bowels had been constipated since her admission to the Hospital. Ordered hot turpentine stupes to the abdomen, and ⅓gr. morph. sulph. every three hours, if necessary, also a little brandy and iced water.

June 13th. The medicines and hot fomentations gave great relief, and after getting the second hypodermic injection she passed a comparatively comfortable night, but vomited several times through the course of the night and this morning. The pulse is now 140, but softer and fuller. Tongue brown, furred. Bears slight pressure over the abdomen without complaining. Bowels not moved.

Evening.—Condition improving. Pulse 140. Tongue moist, and not so thickly furred. Does not complain of pressure over the abdomen, except in the right hypochondrium. Ordered a turpentine enema, and the hypodermic injection of morphia to be repeated if necessary. Continue the iced brandy.

15th.—Improving. Had a good night after the morphia, but the bowels were not moved by the enema. Pulse 130, softer and fuller. Skin moist and cool. Considerable tenderness in the right hypochondrium and has paroxysms of pain three or four times a day. Ordered the hypodermic injection to be administered when necessary to relieve pain; beef-tea, milk and brandy.

17th.—Continues much the same. No movement of the bowels. Rest disturbed by attacks of pain on the right side of the tumor, has had the morphine three or four times in 24 hours. The menses appeared during the night—scanty.

20th.—Rather more comfortable; the stomach bears nourishment a little better; the bowels remain obstinately constipated; the œdema of the feet and legs has subsided; pulse 120; temp. 98°; resp. 22.

22nd.—At a consultation of the Hospital staff, the critical condition of the patient—the existing peritonitis—the probability of disorganizing changes taking place within the tumor—and the sure and certain end rapidly approaching, having been recognized, and a free interchange of opinion expressed, ovariotomy was decided upon. The operation was commenced at noon in the presence of the faculty and a number of practitioners and medical students. Dr. Mullin administered the chloroform in his usual careful and attentive manner, and Dr. Malloch kindly acted as chief assistant. The abdominal section was made five inches in length, but this was afterwards increased to seven inches. On opening the peritoneum some ascitic fluid flowed away, and through this the bluish-white glistening tumor was recognized. As no adhesions could be felt with the fingers the patient was now turned on her left side, the presenting cyst seized at the upper end of the incision by a pair of strong long-toothed forceps and steadied while being tapped with a large trocar; but through the canula of this instrument the jelly-like contents, assisted by pressure with the hands, came away so slowly that considerable time was occupied in evacuating the cyst. After the parent cyst was thus lessened, several smaller ones came into view, and were one after another laid open freely with a bistoury and quickly emptied. Each of the smaller cysts was found to differ from the other, both in color and consistence.

Though about one third of the tumor proved to be solid it was thus sufficiently reduced in size to permit its being extracted through the enlarged incision, by traction with the forceps, assisted by the hands of the operator. Now it was seen that the omentum was closely adherent in several places to the superio-posterior part of the tumor. Considerable difficulty was experienced in separating these adhesions, which, on being accomplished, bled freely. The omentum was then turned up and carefully laid upon a soft napkin placed across the abdomen, and the bleeding points were secured by the use of a number of small silk ligatures. The ligatures were all cut short and the omentum was immediately returned to the peritoneal cavity. While Dr. Malloch was thus arresting the hemorrhage of the omentum, the operator was engaged securing the pedicle. This was found attached to the right side, and being of moderate length it was first tied with whip-cord, near the tumor, and the latter cut away and removed. A loop was then made with the cord, affording a convenient handle with which to manipulate the stump. This was treated by the extra-peritoneal method,—fixed ex-

ternal to the wound by means of a Spencer Well's clamp. Portions of the intestine appeared inflamed and deeply congested. After the peritoneal cavity had been thoroughly sponged, it was found that some oozing of bloody serum continued, and as a number of ligatures had been left upon the omentum it was deemed advisable to provide for drainage, therefore, a large glass drainage-tube was inserted, above the pedicle, reaching down into Douglas's space. The abdominal wound was then closed and dressed in the usual manner, and the patient was placed in a clean, warmed, comfortable bed, with warm applications to her feet. She slept two hours from the effect of the anæsthetic, waking two or three times when she was given a little brandy and iced water.

The following notes are abbreviated from the Hospital record :—

4. P.M.—Complaining of some pain ; morph. sulph. gr. ½ was administered hypodermically.

4.30. P.M.—After taking a small quantity of beef-essence she almost immediately vomited—the first time since the operation.

9 P.M,—Pulse 140, temperature 100⅕°, respiration 12 ; about five ounces urine taken away by the catheter. Wishing some drink, she was allowed a little brandy and water, directly after which she vomited nearly a pint of greenish-tinged fluid. Dr. Rosebrugh, ordered small pieces of ice at frequent intervals instead of drink, and to have very little fluid during the night; urine to be taken by the catheter, every eight hours ; morphia hypodermically occasionally, to keep the patient at rest and free from pain.

23rd. 8 A.M.—Had a pretty comfortable night a hypodermic injection was administered at 10 p.m. and another at 6 a.m. Considerable reddish serum has escaped around the drainage-tube and pedicle, saturating everything about the patient.

	Morning	Pulse 136.	T. 100⅕°.
	Noon	" 140.	" 99⅗°.
	Evening	" 136.	" 100⅕°.
24th.	Morning	Pulse 114.	T. 99⅗°.
	Noon	" 112.	" 99⅗°.
	Evening	" 132.	" 100⅗°.
	9 p.m.	" 140.	" not recorded.

The patient appeared to be doing so well during the fore-noon, that no particular restrictions as to fluid, were mentioned to the attendants, but on visiting the Hospital at 9 o'clock in the evening, we found the patient in a very low, exhausted condition ; the day had been very warm, and too much iced water, milk, &c., had been allowed, and she had had frequent attacks of vomiting during the afternoon and evening. The pulse had increased in frequency from 112 to 140. Gave peremptory orders that she should have nothing during the night excepting small pieces of ice to suck, and occasionally a desert-spoonful of lime water and milk, in equal parts, iced, nothing else.

25th, 8 A.M.—Had a pretty good night, although she remained in a very low and exhausted condition ; did not vomit after the restrictions of last night. Pulse 124, temperature 99⅘°. Ordered the restrictions to be continued. When thirsty may suck ice, but to have no water. Nutritive enemata, consisting of beef-essence to be administered every three hours. (This was continued five or six days until nourishment was craved and digested by the stomach.) *Noon.*—Pulse 126, temperature 99⅘°. *Evening.*—Pulse 126, temperature 100⅕°

26th.—Improving. Has not vomited since being confined to the lime water and milk. The beef-essence per rectum is retained comfortably. The catheter has been used about every eight hours ; and the morphia hypodermically has had to be repeated three or four times a day. Pulse 120, temperature 99⅘°. Evening, no change.

27th.—Pulse 124, temperature 101°. A small flexible tube, attached to the bulb of a syringe, was inserted into the drainage-tube, and about half an ounce of fluid withdrawn, after which, by means of this syringe, the pelvic cavity was washed out with a solution of warm water, containing two drachms of common salt and a few drops of carbolic acid, to the quart. In a short time the pulse fell to 120, and the temperature to 98⅘°. The bowels were moved slightly this afternoon—the first motion for three weeks. At her urgent request the patient was allowed half a small cup of tea, which she relished very greatly, and it agreed with her stomach.

28th	Pulse 120.	T. 98⅘°.
29th	" 104.	" 99°.
30th	" 112.	" 99°.

On the 29th the bowels were moved three times; on this day several stitches were removed, also the clamp, which had become loose. The pelvic cavity was daily washed out, a little serum and broken down tissue coming away. The stomach

digesting the nourishment very well, a more liberal allowance of food was permitted.

July 1st.—Pulse 124, temperature 100¼. The patient is not looking so well—has a sunken appearance. About half an ounce of very offensive pus was found in the drainage-tube, also some pus about the tube in the wound; withdrew the pus, cleansed the wound, and washed out the pelvic cavity, after which the patient appeared much better.

July 2nd	Pulse 102.	T. 99⅘°.
" 4th	" 100.	" 99°.

The drainage-tube having been forced nearly out of the wound, was removed. The remaining stitches, were also removed. The aid of the catheter, from this date was discontinued. Bowels moved by the aid of an enema of warm water. From this date she gradually and continuously improved, so that by the 16th, she began to leave the bed for a short time, and on the 30th, left the Hospital.

The measurements taken a few days previously, were as follows:

Circumference of umbilicus.	23 inches.
Umbilicus to ensiform cartilage.	5 "
" " pubes	5½ "
" " r.a.s.s. process	4½ "
" " l.a.s.s. "	5 "

For some days she had been wearing well-fitting abdominal corsets, with cotton padding underneath, for the purpose of affording support, and preventing hernia through the recently healed cicatrix. She remained in the city a few weeks before leaving for home. During this short time she improved rapidly, and subsequently wrote that she was gradually getting stronger and stronger and fleshing up again.

Remarks.—The special points of interest in this case were—the low condition of the patient, and the desperate nature of the case, owing to the existing peritonitis—the probability of disorganizing charges taking place in the tumor—and the obstinate obstruction of the bowels, due to pressure and inflammation;—the extensive adhesions met with during the operation—the difficulty in arresting the hemorrhage—the number of ligatures left in the peritoneal cavity—and the provision made for drainage. In the after-treatment, the exhausted condition resulting from frequent vomiting—the fortunate result of restricting the fluid taken by the mouth—sustaining nutrition by rectal alimentation—and the beneficial effect of establishing drainage, in first permitting the escape of a large quantity of serum, subsequently affording an outlet for the offensive pus, and lastly, providing a channel through which the pelvic cavity could be washed with disinfectants, on the advent of the symptoms of commencing septicæmia. Above all the pleasing knowledge that the woman is now in excellent health—her disease radically cured—and that she bids fair to enjoy many years of health and happiness.

I have given the history of this unusually interesting case in pretty full detail, hoping that by thus showing under what truly desperate circumstances, valuable lives may be rescued from a premature death, the benefits the operation has already conferred may be yet further extended by encouraging other surgeons to give the poor sufferer the only hope remaining of escaping the inevitable result, should the tumor be left to finish its deadly work.

In closing the appendix, for the present, I cannot with too much emphasis reiterate my conviction that not a little of the success which has rewarded the efforts of the operator, must be attributed to the careful attention given to the minutest particulars, which could, even remotely affect the result. In this connection, I desire to return my warmest thanks to my medical friends, who so ably assisted me in bringing this and other difficult operations to a successful termination.

That operator is indeed fortunate, who can surround himself on such occasions, with good anatomists, skillful surgeons, and learned physicians, with cool heads, alert minds, and ready hands, anticipating every want of the operator, and prompt to meet any emergency. Such medical gentlemen, I am proud to acknowledge, have always kindly and cheerfully rendered me their valuable assistance.

Pregnancy at Eight Years.—The *Gazette Hebdomadaire*, of March 8th, reports a case of extraordinary precocity in a girl eight years of age. She was born fully developed, and with hair on the pubes, menstruated at four years of age, and was seduced and became pregnant at eight. The pregnancy resulted in a mole containing a well-characterized embryo.—*N. Y. Med. Journal.*

SCIRRHOUS CANCER OF THE RECTUM.

BY THOS. S. BARCLAY, M. D., DETROIT, MICH.

Nov. 1st, 1877, I was called to see James Foster of this city, a man about 60 years of age; a barber by trade, of temperate habits. This trouble came on some fifteen months ago; previous to this he enjoyed good health; does not know of his parents or grand parents, having any cancerous growths; they all lived to old age. The patient had been told that he had internal piles. *Present condition.* His face, from its peculiar color at once gave me the impression that he was suffering from cancer; he complained of great pain in the rectum, and across his bowels; there was also considerable flatus which on passing from the bowel was accompanied with a discharge of something as he said "like dirty water." Constipation was and had been for months very obstinate, but he had been taking pills for this and had from one to two passages per day. On making examination I found the abdomen very much enlarged, and very tender to the touch; when the hand was put upon the abdomen the pain he said went through to his back; the bladder was irritable. I then made a digital examination of the rectum. On introducing my finger into the anus he complained of great pain. I passed the finger about two inches when it came upon something hard and nodulated; after I withdrew it there was quite a discharge of blood and muco-purulent matter. I concluded it was cancer of the scirrhous class. I informed the patient as to my opinion, and told him that he would not recover, and would not probably live many months. The family was anxious to have further counsel, and I suggested that he should go up to Ann Arbor and have Prof. McLean's opinion. On the following Saturday he went up before the class and Prof. McLean examined him, and informed the class that it was a very interesting case of scirrhous cancer of the rectum, and agreed with me as to the prognosis.

He returned home, and next day I put him under treatment with a view to give him some relief. I gave him a wash of chlorate of potash, with instructions to inject it up the rectum twice or three times a day. I also gave him internally bromide of potassium and chloral hydrate mixture; this had the effect of allaying the pain so that in a few days he was able to resume work. He continued so well that he had made up his mind that I had made a mistake as to his trouble; this continued for about 10 weeks when he was once more compelled to give up work because of the great suffering. I was sent for and found that he was suffering from peritonitis and that his end was near; he died at 9 o'clock that night.

Autopsy.—A post mortem examination was made on the following day, in which I was assisted by my friend Dr. Harlowe and others. We found on opening the abdomen, that there was considerable adhesion of the peritoneum and bowels which was easily separated. The left kidney was full of cancerous deposit, the right kidney partly affected; the liver was very much enlarged especially the left lobe. On examining the rectum, we found that about two inches from the anus it was so destroyed that the contents of the bowels were now in the pelvic cavity; this no doubt caused the attack of peritonitis and death. I detached the bowels up the whole length of the descending portion of the colon, and on opening the same we found cancerous deposits up as far as three inches above the sigmoid flexure. At the lower part of the rectum there was a cancerous growth about the size of a hens egg.

Remarks.—There is no doubt that in this case, the cancerous disease was acquired, as there was no trace of history of cancer in his family. The case is also interesting from the fact that treatment had the effect of alleviating his suffering, and allowing him to work on in comparative comfort till two days before his death. We might ask was this a case of internal piles in the first place, and did they, or was it possible that they might become the aggravating cause of the cancer? I am not sure that he had piles, at all events there was no appearance of piles when I examined him. I am inclined to think that it was cancer from the first, and that the treatment he received for supposed piles did him harm.

VESICO-VAGINAL FISTULA WITH PROLAPSUS UTERI.

BY JAS. M. SMITH, M. D., MORPETH, ONT.

MRS. J.—æt 24, a stout, plethoric, healthy, looking primipara considerably inclined to embonpoint weighing *220 lbs.*, applied to me *March 30th, 1877.*, complaining of being unable to con-

trol the contents of her bladder, the urine constantly dribbling away, and escaping at the vagina, since her confinement which was on the *5th, Dec. 1875*. The labor had been very protracted lasting over 20 hours.

On making a digital examination, I found, the uterus occupying nearly the whole of the vagina, accompanied by vesical tenesmus, the bearing down efforts causing the cervix to appear at the vulva. The parts were excessively irritable, presenting on physical examination the vulva and thighs reddened, excoriated, and pruritic; covered by a vesicular eruption, ; vaginitis; abrasion of the cervix; vagina covered by urinary concretions and excessively disagreeable odors arising from her body. Placing her in the knee-elbow position and introducing the speculum, I found the fistulous orifice which was somewhat oval in shape, its long diameter, about ¾ of an inch, corresponding to the transverse diameter of the pelvis, occupying the floor of the bladder, close to the upper border of the trigonum vesicæ.

Having explained to her the nature of her trouble I advised her to return home and use frequent ablutions, also frequent injections of tepid water, occasionally adding sufficient carbolic acid to prevent fetor, and a prope regimen, with careful attention to the condition of the bowels, giving her no hope of radical cure, save by surgical operation and even that might fail.

In pursuance of this advice, the case was placed in my hands with a request that the operation should be performed. Having decided on the 15th July as the day for operating, I ordered castor oil to be given the night previous, and a light diet to be given on the following morning, for obvious reasons. Drs. Bray and Murphy of Chatham, having been previously notified, were present, and every thing being got arranged the patient was placed in Sims' position viz., lying on the left side, thighs bent at about right angles with the pelvis, the right a little more flexed than the left, the left arm placed behind the back, and the chest brought nearly flat down upon the table, and brought under the influence of chloroform. The perineum being drawn well back, the buttock and labium up as far as possible, at the same time pressing the uterus back with a spongeholder, and bringing the anterior wall of the vagina, by the introduction of a sound in the bladder, well forward into the field of vision enabled us to obtain a fair view of the fistula. The parts were well syringed with tepid water. The edge of the fistula was caught with a tenaculum, and with a long handled curved tenotome, a strip to the extent of about two thirds of its circumference was cut extending from the mucous membrane of the bladder to that of the vagina, and well beveled from the vaginal surface outwards. The remainder was removed in the same way, any inequalities being evenly pared off with the curved scissors, care being taken to remove the entire border, with sufficient tissue to insure, as far as possible, success. The amount taken measured fully one fourth of an inch from the edge of fistula to point of vaginal section; during this part of the operation the sponge was used freely to check hemorrhage. Seven sutures, were now inserted, of small sized silver wire by charging the needles directly with the wire, and not using the silk as generally recommended. The first attempt was made with the silk but proved a failure, the wire giving way at the loop, before passing through the tissues. I would not again employ the silk, but the silver suture alone with Emmett's short slightly curved needles, as in this case not one failed to pass through without breaking. The fistula was completely closed by carefully twisting the sutures so as not to break them or strangulate the tissues. They were then cut off and disposed of in the usual way. The bladder was syringed out to remove the accumulation of blood and the patient carried into bed, when an opiate was administered, and Sims' sigmoid catheter inserted into the bladder and left there, a small mug being placed under the mouth to receive the urine. Directions were given the nurse to see that the catheter was kept pervious. The vagina was syringed out daily with tepid water, occasionally using a little carbolic acid. The bowels were kept constipated by opium; the diet plain but nourishing. The patient was kept as quiet as possible, until the twelfth day after the operation, when the sutures were carefully removed. On digital as well as visual examination the parts appeared consolidated as the subsequent history of the case has proved. The patient going about as usual, and using her own words, would not know from her present condition that there had ever been anything wrong with her. The prolapsus has entirely disappeared with the use of a pessary.

I must acknowledge my indebtedness to my

Chatham friends for the successful result following this operation; to Dr. Bray for his great care and attention to the patient whom he kept quietly under the influence of chloroform during the operation, and to Dr. Murphy for the use of a complete set of the latest and most approved instruments for the work, and his most valuable assistance in using them.

Correspondence.

RES RARA ADMIRANDA.

To the Editor of the CANADA LANCET.

SIR,—On Sunday the 21st instant I was called about thirty miles north to visit a lady, the wife of a respectable and wealthy farmer, in her confinement, who a short time previous to my arrival was safely delivered of a pair of congruous twins firmly attached to each other from the junction of the upper with the middle third of the sternum above, to two inches above the pubes below and transversely almost the entire breadth of the thorax and abdomen. The opposing costal cartilages and sterni do not appear implanted into each other but the abdominal muscles do, being continuous or interwoven with each other. The integument of the trunk passes across the outline of union without interception or reflection above, below and laterally, thus enclosing the bodies in a complete integumental envelope. Between and above the opposing pubic bones there is consequently a semi-circular expansion with its concavity upwards, formed partly by the abdominal walls, in the centre of which is implanted *one* umbilical cord of large size. Their conjoint weight is 11 lbs. 2 oz. of equal size, finely featured, symmetrically formed, both males and fully developed. I have them neatly retired in a glass-lined shallow tank with glass cover, and as they lie side by side, face to face, breast to breast and each clasped in the others arms, they outrival all similar *lusi naturæ* I have seen or read of, and strongly similate what one could easily imagine as two angels in miniature sweetly sleeping.

During pregnancy the mother suffered much from abdominal pain and tenderness, and acidity of the stomach. She had an abortion 10 months previous to labour. Severe after pains and considerable post-partum hemorrhage occurred, the labor having been tedious and very painful. An hour elapsed after the birth of the first head, the occiput of which presented before the second came, the frontal bone presenting, the nurse meanwhile making strong traction upon the first-born head which probably rather retarded than otherwise the delivery of the second, from impacting the parietal surface into the hollow of the sacrum, the neck and shoulders engaging the lower strait. They were consequently still-born, but were full of life up to the day of birth.

The parents have consented to have them at some future time dissected, if asked for by the profession. Hoping I have not trespassed too much on your valuable space.

I am yours truly,

W. REAR, M.D.

Bracebridge, April, 25th 1878.

A QUEER CASE OF MIDWIFERY.

To the Editor of the CANADA LANCET.

SIR,—Just one month ago I was called to attend Mrs. Thompson, negress, æt. 28, Evergreen District, in labour with her second child. I arrived there about 3 o'clock p.m., and found that she had been in labour for about 12 hours. Examination revealed two large fleshy masses protruding from the vagina, the finger passing up met the head on the brim of the pelvis, but the most careful exploration failed to discover the os. Patiently hunting round I found, at the point where the two fleshy masses (one of them as large as an orange) were attached to the cervix, what felt like an old cicatrix. Pains not being strong, I waited a while and then gave a good dose of ergot which improved them. Examined again, but no os could be found; waited still and then I thought that the cicatrix seemed to stretch. During a pain I steadily and persistently scratched with my nail along the track of the cicatrix and felt it give, continued the scratching and gradually worked my way into what felt like muscular tissue. Waited an hour or so, and then found that the opening I had made with my finger, in the uterus, seemed larger; I scratched away at it, and at last had the satisfaction of passing through something on to the head, so I ruptured the membranes. Passing my finger round the opening I had made

I could feel the sharp edge of the stretched muscle, no rounded off edge like the natural os, the opening terminating in a sharp angle, like a slit in the muscular tissue and being about 2½ inches in length. I waited impatiently for 2 hours in hopes that nature would do something, but the pains not improving and the head not coming down any further I applied the forceps through "the slit", the fleshy masses, which were by this time greatly enlarged and protruding through the external parts, being rather in the way. It did not require much force to extract the head, but I distinctly felt something tearing as it advanced through the "slit". Delivery was easily completed; the placenta came away at once, and there was considerable hemorrhage afterwards. I examined and found that the slit had extended through the place where the cervix ought to be, and as much further as I cared to follow it. Having with difficulty found something to bind her with, I applied it, gave her a dose of ergot and left her quite happy, smoking a T. F. On enquiring from her mother as to what sort of a labour she had last time, I was told that she was a long time bad and that Dr. Olgivie, formly of White Gully district, but now residing in Kingston had to be called in, but that she soon got better after he came. I accordingly wrote to Dr. Ogilvie, and I give his recollections of the case.

Dr. Ogilvie writes me—"About three years ago, I was in the vicinity of Mrs. Thompson's residence and was told she was in labour, but was not asked to see her. Judge, therefore, of my astonishment when a week afterwards, they sent for me to deliver her. On my arrival, I found that the pains had almost, if not entirely, ceased; but they stated she had been in strong labour all week! On examination I found the parts in a state of "general slough," and on turning my finger round in the os (which was not larger than a penny piece) the whole thing gave way. I made pressure externally over the uterus with my left hand, and found that the head advanced, and retreated when the pressure was removed. Applied the forceps, and delivery was completed with ease. Placenta came away soon after, and recovery went on rapidly. I saw and examined her about two months after, and found that the os was divided into three sections, each section hanging down in the vagina, and that the rupture was the entire depth of the cervix. It is evident that union of the ruptured os must hav taken place, otherwise it would have been impossible for the uterus to have retained a fœtus."

I have great pleasure in forwarding to the CANADA LANCET the above case, and will only add that I have heard twice from the woman and she says she is in the best of health. I hope to have an opportunity of making a vaginal examination some day, and will favour your readers with the result of the next labour? if it is my misfortune to be the attendant.

Medical men are thrown on their own resources completely in this country, as the distances they reside from each other (in my case I am 25 miles from a brother practitioner) precludes, except in a few districts or in the towns, any consultation or assistance. Midwifery here consists in being called in when the patient has done all she can, or her friends can suggest, so that whenever we are called we may expect "something queer," and in this case the realization was greater than the expectation. I will be glad to send to the CANADA LANCET a short account of Jamaica and its advantages as a residence for invalids, but as I am in a hurry to catch the mail to America, I must now conclude.

I remain, yours truly,

JAMES JAGER HILLARY.

Balaclava, Jamaica, W. I.,
January 17, 1878.

To the Editor of the CANADA LANCET.

SIR,—Will you kindly inform me in your next issue to what fees a *medical witness* is entitled in a City Police Court, and oblige,

Yours truly,

M. ——.

[Medical witnesses stand on the same footing as other witnesses in Police Courts, and in cases before Justices of the Peace. No fees are allowed them.] — ED.

Selected Articles.

TREATMENT OF BOW-LEGS IN CHILDREN.

Dr. Ernst F. Horst read a valuable and interesting paper on the treatment of bow-legs in children, at the Hospital for Ruptured and Crippled, giving the results with and without apparatus. He cited the opinion of authors who advised as well as those who condemned the use of instruments.

Sixty cases had been carefully observed, and of these fourteen received no mechanical aid, while forty-six had appropriate instruments applied. The fourteen cases were under observation from four to nine months, and were treated by manipulation of the limbs and constitutional treatment. In one case there was improvement, in four no improvement, and in nine the curve had increased.

In regard to the forty-six cases to which instruments were applied, not one of them was found to have had an increase of the curvature, though in some there was no improvement. In cases in which there was no improvement it was noticed that when they abandoned the use of the braces the curvature increased. In sixteen of the cases the improvement was marked. It was seen that the greatest benefit was obtained in those in which the curvature was greatest. The most satisfactory results were found in children between two and three years of age. Dr. Horst said that the length of time in which he had observed the cases was not sufficiently extended to determine definitely whether apparatus would completely relieve the deformities in all cases; but there could be no doubt of their marked benefit. In two of the cases in which no apparatus was used for a time, and in which a change for the worse was taking place, he had applied braces, and after two months' use a change for the better was observable. The cases that were considered cured had worn braces from nine months to two years. There was no injury, as might be suspected, from atrophy due to the pressure of the instruments. In all of the cases massage and friction of the limbs were employed twice daily.—*N. Y. Med. Journal.*

THE STRONG ELASTIC BANDAGE.

The treatment of varicose and other chronic ulcers of the leg is so generally unsatisfactory, that any new method promising favourable results is to be hailed with delight.

The latest novelty is the use of the strong elastic bandage, with which Dr. Henry Martin claims to have cured over six hundred cases without a single failure. The bandage is of "pure rubber," ten and a half feet long, three inches wide, and thickness of number twenty-one "Stubs' wire gauge." The length and breadth may vary with the size of the limb, but this is the most desirable thickness. It is applied by winding one turn just above the malleoli, then one around the instep and sole, then spirally up the leg to the knee, where it is fastened by tapes attached to the end of the bandage for that purpose. If it is desirable to apply it as far as the groin, a bandage eighteen to twenty feet long will be necessary. At night the bandage is removed and the ulcer protected by a piece of oiled linen, or some equally simple dressing. In the morning all traces of oil or cerates must be carefully removed, as fatty matters tend to injure the rubber, and the bandage should be reapplied before leaving the bed. It should be applied with just sufficient snugness to prevent it slipping down, and the increase of blood in the veins on standing will cause it to become of the exact degree of tightness. The bandage keeps the leg warm, moist, and air-tight, conditions most favorable to granulation and cicatrization, and in addition the gentle, even pressure so supports the distended and weakened vascular coats as to prevent that venous congestion so frequently the cause of the malnutrition of skin. For the first one or two weeks a papular eruption appears under the bandage caused by obstruction to the cutaneous follicles. The bandage is their best treatment. In non-specific ulcers no other local treatment is necessary. The circulation of the limb is not stopped, but, owing to the support given to the vessels, is facilitated; thus there need be no fear of causing œdema of the foot —on the contrary, the œdema which so constantly accompanies varicose ulcers is rapidly absorbed. The occurrence of œdema indicates the improper application of the bandage.

The use of this apparatus is not confined to the treatment of ulcers; injuries and diseases of the joints, especially of the knee and ankle, are equally benefited. In sprains, the strong elastic bandage wound around a joint affords a constantly present substitute, externally, for the disabled ligament. The constant pressure induces a rapid absorption of the exudation among the tissues about the seat of injury, and the gentle, equable warmth and moisture, which always accompany its application, have a most favorable effect in alleviating and preventing inflammation. In diseases of the joints marked by effusion, the application of the bandage after aspiration, has been followed by complete success. In these cases the bandage should be applied day and night for six to eight weeks. Its use is also recommended in disease of bursæ mucosæ, œdema, erysipelas, and erythema, cutaneous affections, and as a radical cure for varicose veins; in the latter case it is supposed to act by causing adhesion of the walls of the vessels, and their consequent obliteration.—*Med. Record.*

ON THE UNITY OF PHTHISIS—GRANCHER, VIRCHOW, AND CHARCOT.—Pulmonary phthisis has always been the object of numerous researches, but of late years practitioners have made new studies of it in all directions. At this moment it is known that physicians are divided into two schools of unicists and dualists on the question of phthisis. Those who believe in the unity of consumption believe that the different anatomo-pathological forms of this disease do not, in any way, detract from the unity of these terms, and that caseous pneumonia and tubercles are at bottom the same. Those who controvert this view consider that there

are two ways of being consumptive, and that there exist two processes which give rise to the disease—caseous pneumonia, an inflammatory disease, and tuberculosis, with the tubercle granulation, a phenomenon quite different from inflammation. Dualists in phthisis, like Jaccoud and Niemeyer., &c., consider that there are phthisical patients and tubercular patients, and, if this were the case, diagnosis, prognosis, and treatment should be different in the matter of phthisis. Virchow and Niemeyer have been the leaders of this school, which has so many adherents in England among the younger physicians. In Paris, on the contrary, the older physicians, and in London, Dr. Wilson Fox and many other able men, are unicists.

Firstly, it is clear enough that there is less difference of opinion among the practitioners in the presence of the living patient than in the dead-house; and this is the more singular because in most diseases the discussion ceases when the patient dies and the anatomical lessions are before us. But when the sick person is alive dualists and unicists both call the disease phthisis, treat it in the same way, and, alas! give the very same prognosis. Volkmann, in 1871, writes, in the *Sammlung Klinischer Vortrage*—"Caseous inflammation, in our time, is not more consoling than the tubercle of former days." It is true, indeed, that pure dualists, pursue their views even to the bedside, and allege that it is easy enough to distinguish caseous pneumonia from tubercle. This is evidently merely an exaggeration, since well-educated unicists recognise clearly the difference between cases of phthisis, whether they become localised or generalised, &c. The unicist, however, admits that the differences noticeable at the bedside do not change the nature of the disease, and, spite of the *post-mortem* appearances, he alleges that it is always phthisis that is before him. He points to the number of cases where granulations and the so-called caseous pneumonia are found in the same lung. The dualist replies to this that there are many cases of consumption where pneumonia alone is found, and alleges that there are different diseases, since pneumonia and tubercle may be found isolated. He also says that lesions histologically so different, cannot be of the same nature. The pure dualist makes a great point of his treatment, and maintains that dualism has made quite a revolution in the therapeutics of consumption.

In France, owing to the works of Lænnec, Louis, and Andral, and, perhaps, too, because clinical studies are more attractive than anatomical and laboratory investigations, the doctrine of unity prevails. One authority will allege that all these studies on the forms of phthisis signify nothing at all, and that the whole novelty of the modern doctrines is merely in their terminology. Other writers on medicine accept willingly enough the new anatomical data, although they limit the importance of the novelties proposed. For instance, Dr. Charcot uses the new terms, but is still a unicist in phthisis. In Germany, on the other hand, where clinical observers are not in general the persons who carry on anatomo-pathological investigations in the laboratories, dualism is in vogue, and the reason is clear enough. The man who merely examines dead-house specimens of phthisis can hardly be made to believe in the unity of the disease. The naked-eye differences, too, are corroborated by the microscopic appearances of the disease, for it is quite true that the tubercle granule differs histologically from the caseous granulation, so that the observer has the right to say that there are two different lesions. But dead-house pathologists have gone further, and have said these form two different diseases—two diseases which have nothing in common but mere chance when they are met in the same subject, for the one is specific and hereditary, whilst the other is neither of these, but merely a simple inflammation like pleurisy.

Virchow is most particular in his definition of tubercle, and, in his view, the grey semi-transparent granulation alone is entitled to the name. Everything else ought to be called caseous inflammation. A tubercular granulation, he says, or tubercle, is a nodosity, which is usually rounded, formed of small cells pressed together, and presenting at its centre a degenerating zone, whilst at the circumference there is a zone of proliferation.—*The Doctor.*

LAPARO-ELYTROTOMY AS A SUBSTITUTE FOR CÆSAREAN SECTION.

Dr. T. Gaillard Thomas read an important paper upon the above subject, giving a detailed report of all the cases in which the operation had been performed, and setting forth the advantages which it had over that of Cæsarean section.

The operation had been performed only once prior to the date at which Dr. Thomas performed it in 1871, and then by Ritgen. It had been performed upon the living woman since that date *five* times, three times by Dr. A. J. C. Skene, of Brooklyn, and twice by himself. Of the five mothers *three* were living, and the number of children delivered live was *four*.

The operation was simple, and consisted of making an incision through the abdominal walls, from the spine of the pubes to the anterior superior spinous process of the ilium, lifting the peritoneum making an incision through the upper portion of the vaginal wall, tilting the body of the uterus over to the opposite side, and then, through the dilated cervix, delivering the child by version, by the forceps, or by extraction. Delivery was to be effected by version in arm-presentation; by forceps when the head presented; and by extraction in breech-presentation. Hemorrhage was one of the things

to be feared in the operation; but, in five cases, no hemorrhage had occurred, and why should it occur in future operations? But, even admitting that hemorrhage occurred, it became a question whether the risks should not be taken, because the risks of peritonitis and shock following other operations were avoided. The dangers of Cæsarean section were peritonitis, metritis, hemorrhage, shock, incarceration of the intestines in the uterus, and septicæmia. By the operation of laparo-elytrotomy the danger from peritonitis, metritis, and incarceration of the intestines was entirely avoided, and, in a great degree, the danger from septicæmia and shock was diminished. The operation might be followed by hemorrhage, and, in place of peritonitis, cellulitis might be developed. Dr. T. did not regard laparo-elytrotomy as yet an established standard operation, but sufficiently tested by experiment to deserve a careful consideration at the hands of the medical profession.—*Medical Record.*

TREATMENT OF COLLES' FRACTURE.

By Frank H. Hamilton, M.D., New York.

We come now to the subject of the treatment of these fractures of the lower end of the radius. It will be found that the hand is usually thrown towards the radial side (for the detailed explanation of which circumstance I must refer you to my work on fractures and dislocations), and this is the reason why so many pistol-shaped splints have always been used in these fractures. I now exhibit to you quite a number of them, which have been devised by different surgeons, and the object of all of them is to throw the hand in the opposite direction. Now, what effect has such a splint in producing the desired result? None whatever. In order really to have any effect in counteracting this tendency to adduction, the traction must be made forcibly The easy position afforded by the pistol-splints which I show you causes the hand to move only in the wrist-joint, in which there is naturally very free lateral motion allowed. The only splint ever known by which sufficient adducting power to be of any practical service was obtained was that devised by Nélaton; but no human being could possibly stand the pain occasioned by the stretching of the injured ligaments which would necessarily happen. You will presently see that I use the pistol-splint myself, but not for the purpose just mentioned. There is, indeed, no indication to fulfil by throwing the hand towards the ulnar side; the only real indication in the treatment being to restore the fragment to its own place and maintain it in position. When the fracture is once reduced, it remains so permanently with the greatest ease, for the least pressure in the opposite direction prevents the fragment from slipping back again. This fracture, however, which, as I said, is almost always transverse, is not quite so easy to reduce as it is to maintain the parts in position when the reduction has been made, and this is due to the denticular character of the surfaces where the bone has been broken off. A good reduction at first I regard as the most essential point of the treatment, and I lay special stress upon it, because I have seen so much injury to the joint under consideration result from tight bandaging, which is altogether unnecessary, and seems to be resorted to by some under the idea that great force is required to keep the lower fragment in position. *If you ever get a good result in this fracture, it will be because you have reduced it well at first**. Be very careful, then, to get the lower fragment into line before applying any bandage whatever, and "if at first you don't succeed, try, try again." I ought to remark here that in not one case out of five do I succeed in getting crepitus in reducing it, because the fragments glide over each other so smoothly. Having reduced it well, which as I again remark, is a matter of the utmost importance, I care very little what apparel you make use of to retain the parts in position. There are a variety of appliances, by all of which you can get excellent results: but I must say that I like my own the best.

I am in the habit of employing the pistol-splint because it affords a better view of the seat of fracture, and thus enables me to see whether the fragments are in line. It is, of course, applied to the palmar surface, and this is sometimes the only splint I use, though ordinarily I prefer a back-splint also. When I am going to treat a Colles' fracture, I take a piece of common shingle and cut it to the shape best adapted to the particular case, always taking care to hollow out a space into which the ball of the thumb may fit, and to cut it off at such a length as to reach only to the metacarpo-phalangeal articulation, so as not to interfere in the least with the free motion of the fingers. There is no reason whatever why the motion of the fingers and thumb should be interfered with, and by leaving them free you prevent any stiffness or tendency to anchylosis, as well as greatly enhance the comfort of the patient. The splint should reach as high up as the elbow, and should be carefully padded, especially in the portion covering the palm of the hand, in such a manner as to adapt itself well to the parts with which it comes in contact, except at the seat of fracture. It is a point of the utmost importance that there should be no padding between the lower fragment and the splint, but that here the space should be so open that there can be no posssbility of any pressure upon the median nerve and the radial and ulnar arteries. Pressure upon the nerve always causes excessive pain. To sum up then, the treatment consists of, *first*, complete reduction of the fracture at first, and, *second*, the retention of the parts in position by means of

*The italics are ours.—ED. L.

an apparel which shall be perfectly comfortable to the patient, and in which there can be no danger of pressure upon the nerve and arteries. The same treatment is equally applicable to all the complications of which I have spoken; though, fortunately for the surgeon, the injures which are sufficient to produce the comminuted form of fracture almost always result fatally.

In all of these wrist-joint fractures it is important to give motion early; and fortunately, in the ordinary cases, we can do this at about the end of a week.—*Med. Times.*

TREATMENT OF BRONCHIECTASIS.

Dr. Bardenhewer says (*Berliner Klinische Wochenscrift*) that according to Gerhardt, articular rheumatism may occur in connection with suppurative diseases of mucous membranes, and in consequence of the absorption of, and blood-poisoning by accumulated, stagnating, and decomposing purulent effusions, as in bronchiectasis (bronchitis with dilated bronchi), diphtheria, gonorrhœa, pyæmia, dysentery, etc. In confirmation of this view, two cases were observed in the Cologne Hospital. Both were well-marked cases of bronchiectasis, with abundant muco-purulent and very fetid expectoration, for which both were treated with inhalation of a solution of 2 per cent. of carbolic acid. While under this treatment, and improving with it, both were seized with rheumatic inflammation. In the first case there was a single attack of pain, and swelling of the left knee, which gave way to local application of ice. In the second case, three separate attacks occured in both kness, presenting all the symptoms of acute articular rheumatism, and where relieved by the internal use of salicylic acid. Both cases ultimately recovered completely. Gerhardt strongly advocates mechanical compression of the thorax in the treatment of the bronchiectasis, as removing the stagnating purulent secretion, diminishing the concomitant fever, and also relieving the rheumatic symptoms. In place of this, the above two cases were treated by carbolic inhalation—the same treatment, indeed, having been steadily pursued for about three years in the Cologne Hospital in all cases of bronchiectasis. Cases of pneumonia, pleurisy, mechanical injuries of the respiratory organs, etc., may at different stages present expectoration of abundant purulent and fetid sputum. The sputum separates on standing into three distinct layers (Traube); the upper layer is greenish-yellow, opaque, and frothy; the middle serous, transparent, and albuminoid; the lower yellow, opaque, and consisting of pus and detritis. It further contains paste-like plugs of a dirty yellowish color, which are extremely fetid, and consist of finely granulated detritus, mixed with larger fat globules, in which are suspended occasionally (Virchow) acicular crystals of margaric acid. In presence of this kind of sputum, treatment has the double object of counteracting its putrescence and of reducing its excessive quantity. Arrest of the putrescence of the secretion accumulated in the bronchial tubes is generally followed by diminution of its quantity—since the putrid secretion itself acts as an irritant in causing its continuous production and decomposition, and also in maintaining the accompanying febrile state. The main indication, therefore, is the arrest of the putrefactive process. The experience of thirty cases within the last three years is, that this is best fulfilled by the inhalation of carbolic acid. For this purpose a solution of carbolic acid in water (1 or 2 per cent.) should be inhaled every two hours day and night for several weeks. The result has always been most favorable, even when, from the nature of the case, complete cure was out of the question; while in several instances, when strong evidence of cavities existed, this treatment led to a perfect restoration to health.—*London Med. Record*, Feb. 15th, 1878.

HÆMOPTYSIS; SUBCUTANEOUS INJECTION OF ERGOTINE.

Jos. Hirschefeld (*Wiener m.dizinische Presse*, No. 21, 1877.) says that among the therapeutic measures used against hæmoptysis cold deserves some recognition, as it, by reflex action, produces constriction of the vessels and diminution of their calibre, and so facilitates the formation of thrombi. The internal use of ice is to be preferred to the external application of cold. Any therapeutic procedure against hæmoptysis is essentially aided by deep inspiration (recommended by Niemeyer), provided the hæmoptysis does not come from a cavity. The expansive force of air breathed in and held in the lungs as long as possible exercises, evidently, a pressure on the walls of the vessels and on the gaping wound. The forced inhalation of astringents has not answered expectation. Styptics, such as alum, lead, tannin, chloride of iron, etc., taken internally effect but little, and often disturb digestion. Of the narcotics, digitalis deserves special consideration, as it will show a beneficial although not a rapid action when the heart is excited, and especially when an uncompensated affection of the heart is the cause of the hæmoptysis.

The sovereign remedy against hæmoptysis is ergotine, which, as is well known, excites the vaso-constrictors. A solution in glycerine (1.10) is better than a solution in water, as after long standing it shows but little sediment aud no fungi. After the injection the spot injected becomes very sensitive, with some heat, followed by redness, which disappears in eight or ten hours. If the

patient is much excited or has much cough the author is accustomed to precede the ergotine injection with one of morphia, or to give them both at once but in different places. In this way, the patient becomes quiet in mind and body, and the ergotine has a better chance to act.—*Boston Med. and Surgical Journal.*

SURGICAL TREATMENT OF STONE IN THE BLADDER.

Sir Henry Thompson's paper at the last meeting of the Royal Medical and Chirurgical Society, in which he gave the pith and marrow of his experience derived from the treatment of five hundred cases of stone in the bladder of the male adult, is unique in the history of surgery. The profession has never before been presented by one man with such extensive, exact, and laboriously acquired information on the subject of stone in the bladder. With but few exceptions, the author showed to the Fellows on Tuesday night every stone he has removed, either by lithotrity or lithotomy. On the table was placed a schedule containing all the essential particulars of each case, with numbers corresponding to the specimens. Such an arrangement must have required immense care and attention to detail, and would have been almost impossible had not the author, as he told his audience, methodically made written records of each case on the same principle from the commencement. So anxious was he to be authentic, that he attached to each case the name of the medical man who had original charge of the patient, or, none such existing, he mentioned the name of any medical man who happened to be present at the operation.

Sir Henry's five hundred cases represent his entire and unselected work from the commencement of his career up to January, 1877—a period of nineteen years. These five hundred cases occurred in four hundred and twenty individuals of twenty years old and upwards, the mean age being sixty-one years and a half; no women are included in the series. Four hundred and twenty-two were cases of lithotrity with a mortality of one in thirteen, and seventy-eight were cases of lithotomy with a mortality of one in two and three-quarters. The mortality of the whole five hundred was one in eight and a half. So low a rate is a very enviable result, and shows how much can be done by a judicious selection of the two operations. And perhaps no fact was more important than this, upon which the author laid stress, viz., that lithotomy and lithotrity are not to be regarded as antagonistic, but as complementary the one to the other; and, so far from being opposed to each other, that they are really inseparable companions. Sir Henry Thompson has long taught this close relationship. Yet even now, in many minds, the two procedures present conflicting claims; and it is observable that this belief seemed to characterise the remarks of some of the speakers who followed in the discussion. This feeling has to some extent originated in the enthusiasm with which the celebrated father of lithotrity, Civiale, very naturally advocated the operation. He, indeed, endeavored almost to supplant lithotomy, and moreover claimed an immunity from all risk to life for his favorite innovation.

Sir Henry Thompson, at the conclusion of his paper strongly urged the prudence of restricting the application of lithotrity to narrow limits; and stated, as the result of our experience, that he should rarely attempt to crush a hard stone over one inch and a quarter in its largest diameter, or any stone that could not be crushed by a flat-bladed lithotrite, utterly condemning the use of the fenestrated variety. As lithotrity, confined within due limits, is unquestionably a safer operation than lithotomy, it naturally results that the early detection of stone in the bladder should be the constant aim of the practical surgeon. The author adverted to the occasionally distressing after results of lithotrity, and agreed with Mr. Cadge that there are some who neither die nor recover, but continue to suffer with painful symptoms. But he thought these cases would be much more unfrequent, if lithotrity were confined to the limits laid down. And he pointed out that they were cases in which the bladder, ureters, and kidneys were diseased previously to operation, and in which lithotomy was almost necessarily fatal; whilst the occasional introduction of the lithotrite afterwards was the price paid for life. And he inferred, therefore, that, when the patient ultimately succumbed, it was unfair to attribute his death to lithotrity, when it might more fairly be said that the last few years of his life had really been gained by it.

It is worth remarking that this report comprises all the author's cases; and it therefore, includes his period of inexperience as well as the results of his ripe and mature knowledge. It is, therefore, possible that the surgeons of the future, recognising the proper relations between lithotomy and lithotrity, and the importance of the early detection of calculus, may even obtain a lower rate of mortality, than Sir Henry Thompson's result of one in eight and a half; and so contribute, still further to render surgery (to use the felicitous language of Sir James Paget) "a most happy profession."—*British Med. Journal*, March 23rd, 1878.

BORAX AND NITRATE OF POTASSIUM IN SUDDEN HOARSENESS. — These two salts have been employed with advantage in cases of hoarseness and aphonia occurring suddenly from the action of cold

("La France Medicale"). The remedy is recommended to singers and orators whose voices suddenly become lost, but which by this means can be recovered almost instantly. A little piece of borax the size of a pea is to be slowly dissolved in the mouth ten minutes before singing or speaking; the remedy provokes an abundant secretion of saliva, which moistens the mouth and throat. This local action of borax should be aided by an equal dose of nitrate of potassium, taken in a warm solution before going to bed.—*Philadelphia Times.*

THE PESSARY CATHETER IN THE TREATMENT OF BLADDER AFFECTIONS;

BY REGINALD HARRISON, F.R.C.S., Surgeon to the Liverpool Royal Infirmary.

I have recently been using in the local treatment of the bladder soluble pessaries, introduced by means of a special instrument manufactured for me by Messrs. Krohne and Sesemann, and which I have designated a pessary-catheter.

The instrument consists of a metallic catheter, open at the end, into which is received a cocoanut-butter pessary, containing the requisite drug. After the urine has been allowed to run off, by pressing the stylet the pessary is projected into the bladder, when the instrument is at once removed. The pessaries have been specially prepared for me by Messrs. Symes, of Hardman-street, Liverpool, and contain various agencies, including morphia, opium, bismuth, nitrate of silver, perchloride of iron, and belladonna. The pessaries are so shaped as to form an end for the catheter; and their exposed surface is hardened by a layer of spermaceti, so as to prevent their becoming dissolved in their passage down the urethra. The instrument has been made for me in two sizes; in one the end corresponds with a No. 12 bougie, in the other with No. 8. Pessaries to fit each have been made for me by Messrs. Symes.

In several cases of irritable bladder arising from various causes I have used this instrument with great advantage; in some cases as an adjunct to other local treatment, such as washing out the bladder, catheterism, &c. The treatment of many bladder affections is only to be effectually carried out by local measures, and, in addition to those we are already provided with, I believe the instrument I have now described will be of service. I have certainly found it so, as it enables the surgeon by one operation, first of all, to empty the bladder, and, secondly, to apply what is required, directly to its mucous surface. In this way, I have frequently given a patient a good night by a morphia pessary, where rectum suppositories and other means have failed.—The *Lancet*, Feb. 9th, 1878.

A UNIQUE CASE.

BY DONALD MACLEAN, M.D., PROFESSOR OF SURGERY IN THE UNIVERSITY OF MICHIGAN.

Mr. and Mrs. W. D. called upon me on the 19th June last and handed me a letter from Dr. Allen, of Charlotte, asking my attention to the case of their son, *æt. three years*, who was suffering from a painful swelling of the right upper jaw. The doctor's diagnosis, as stated in his letter, was *abscess of the antrum.*

On examination I found the face much swollen on the affected side, the lachrymal duct seriously obstructed, and the skin irritated somewhat by the flow of tears. On looking into the mouth, which was done under chloroform, pus was observed exuding from the middle of the alveolar process in right side. The introduction of a small probe into this little sinus at once revealed the presence of a minute scale-like exfoliation, which was easily removed by means of a small dissecting forceps. This done, I at first supposed that there was nothing more to do, and as the parents were extremely nervous about the anæsthetic I was not unwilling to believe that the time had come to permit a restoration to consciousness, and so relieve their apprehensions.

A moment's reflection, however, induced me to suspect that the exfoliation, which had just been removed, was insufficient to account for all the conditions present, and I therefore insisted upon a more prolonged exploration. On passing the probe into the opening in the alveolar margin, it at length appeared to touch something in the antrum, which appeared to be unattched. Accordingly I used a pair of pointed dressing forceps to increase the calibre and the little sinuous channel in the alveola, and then I had no difficulty in seizing, and by the exercise of some force withdrawing *the perfectly developed crown of a permanent molar tooth*, with a little mass of glandular structure, which reposed in the concave surface from which the fang should naturally have projected.

No other treatment was advised, and some months afterwards I saw the little patient in good health and much improved as regards the facial deformity.

The specimens derived from this case are now in the possession of Prof. Taft of the Dental College of this University, by whom they were recently presented at the meeting of the State Dental Association, the members of which were unanimous in the opinion that the case is an unprecedented one. *Michigan Medical News.*

TREATMENT OF GANGLION.—Bidder, of Mannheim (*Cbl. f. Chr.*, 1877, No. 52), recommends the injection of carbolic acid as a safe and successful method of treating these annoying growths. The proper procedure is as follows. An ordinary hypo-

dermic syringe, having a sharp needle with a cutting edge near the point, is filled with a two or three per cent. solution of carbolic acid. A fold of the skin being pinched up, the needle of the syringe is thrust under it until the point reaches the capsule of the ganglion. A little slit is made through this with the sharp-edged point of the needle, and then, the latter being slightly withdrawn, the contents of the ganglion are expressed into the surrounding tissues. The point of the needle is then once more inserted into the now emptied ganglion and a few drops of the carbolic-acid solution are injected. A simple water-dressing is afterwards applied. Bidder has been very successful in the treatment of ganglion by this method.—*Med. Times.*

A SUBSTITUTE FOR COD-LIVER OIL.—It is well known that the "cake" which remains after the expression of linseed oil, is largely used by farmers and horse fanciers to fatten their cattle and horses, and to improve the appearances of their coats. This cake contains the principal nutrient albuminoid elements of the ground flaxseed, together with a varying proportion of oil.

Having had of late a number of cases of cutaneous disease, in which marasmus from defective assimilation of the hydrocarbons was a prominent feature, and in which cod-liver oil was not well borne, it occurred to the writer that the oil of the flaxseed might prove an efficient substitute.

In its ordinary commercial condition, linseed is not a very palatable article diet, but as met with in its natural combination in the fresh seed, is by no means unpleasant to the taste. Believing that the same effects might be expected in the human subject as are known to follow the use of linseed in the lower animals, I have made it a portion of the diet of a number of patients who were unable to take cod-liver oil in the ordinary manner.

The better qualities of flaxseed contain about thirty per cent. of oil, so that by the use of the unpressed seed, a very considerable quantity of oleaginous matter can be incorporated in the daily diet. The seed may be used in several ways: First, the freshly ground seed may be taken in the mouth, and thoroughly masticated before swallowing; second, it may be given suspended in milk; and third, the unbroken seed itself may be used. This last method is the one I prefer. To carry this out, I commonly direct the patient to carry in his pocket or other receptacle a quantity of the seed, and from time to time take a little of it in his mouth, and to chew it thoroughly before swallowing, in order to secure complete insalivation. In this way some patients will consume several ounces a day, the amount varying greatly in different cases.

Thus far this use of the seed has not been attended with any disagreeable accompaniments. The stools are rendered easy and natural, without any tendency to diarrhœa, or other unpleasant complications.

The cases of pemphigus foliaceus, pityriasis rubra, lichen planus, and lichen ruber, which were some time since exhibited at the Society, have been taking the seed in the manner indicated with very decided benefit. It will be remembered that they were all in a more or less marasmic condition when first shown. During the use of the seed, however, they have greatly improved in general nutrition and in the condition of their skin.

The ordinary seed of the drug-stores is not the best that can be obtained for this purpose. A much better article being that know as Calcutta seed. Care should be taken that it is free from admixture with other seeds, chaff, dirt, etc.

As a substitute, in many cases, for cod liver oil, we believe that it will be found, on further trial, to fully justify our earlier expectations concerning it.

In view of the fact that there is so much sophisticated cod-oil in the market, and that an inferior article can be readily disguised under the form of an "emulsion," a substitute that cannot be readily adulterated would seem to merit the consideration of the profession, and more especially that of dermatologists, in view of what I must consider its specific determination.—SAMUEL SHERWELL, M. D., in *Medical Record.*

HYPODERMIC INJECTION OF DIALYSED IRON IN CHLOROSIS.—In a typical case of chlorosis occurring in a young woman 21 years of age, Prof. DaCosta reports the results from hypodermic injection of dialysed iron. The girl improved vastly under the treatment. Her rapid improvement was altogether due to the new remedy employed in this very novel manner. The reason why iron has not thus been used heretofore is because it was impossible to obtain a non-irritative for hypodermic use. The tartrate of iron, although one of the mildest forms, is entirely too liable to cause irritation and abscesses. Lately a new preparation of iron, the dialysed iron, appeared in the market, which, it is claimed, is neutral and non-irritating. Dr. DaCosta has used this preparation hypodermically for some days and it has come fully up to its reputation. In no case has there been the usual after-effects of iron, such as costiveness and disordered digestion; all these are done away with. Daily injections of fifteen minims of pure dialysed iron were made. The iron was diluted at first, but experiencing no unpleasant after-effects, the undiluted solution was afterward used. The scars where the needle had been introduced showed no sign whatsoever of inflammatory action. After continuing for some days at the fifteen minim dose, the injection was increased to twenty, twenty-five and thirty minims daily. At the expiration of two weeks the patient showed wonderful improvement; her digestion was admirable, and her menses which

had been suppressed, returned. The color gradually came to her lips, gums and tongue and she felt well; her appetite was good, her bowels regular, and her headache all gone. She was considered practically cured, although it was thought best to continue the administration of twenty drops of the chloride of iron, in water, thrice daily, discontinuing the hypodermic injections of the dialysed solution.—*Philadelphia Medical Times.*

MURIATE OF CALCIUM IN TUBERCULOSIS.—This remedy possesses a most wonderful power in controlling, if not actually curing, many forms of tubercular disease. In my experience I have found no remedy on which so much reliance can be placed in tuberculosis as on this salt; more especially, however, this remark applies to the wasting diseases of children. It has been most extensively used by me during the past four years, and with the most gratifying results—having prescribed it in every form of tubercular disease that has come before me during this period.—ROBERT BELL, F. R. C. P., in London *Lancet.*

Dr. Bell has used it successfully in pulmonary consumption and in glandular and bone scrofula, as well as in tabes mesenterica and in tuberbular peritonitis. Dose for adults, 20 grs., more or less, after meals. It requires to be perseveringly used, and Dr. Bell advises nutrition in conjunction with it; the inunction of olive oil is also recommended. —Louisville *Med. News.*

CHURCHILL'S TINCTURE OF IODINE. — *By Theophilus Parvin, M.D.*—Churchill's tincture of iodine is so valuable in uterine therapeutics, that it is to be regretted druggists are not more generally familiar with its preparation. It has happened to me within a few weeks to have two prescriptions for this tincture filled, in one case, with the ordinary tincture, in the other with the so-called colorless tinctnre. Even when an eminent teacher in a college of pharmacy was applied to by an Indianapolis druggist for the formula for Churchill's tincture, he gave one for a compound of iodine and chloral in alcohol, and also referred to the solution of iodine in glycerine advised by Thomas!

The following is Churchill's formula as given in the fifth edition of his Diseases of Women: he stated then, 1864, that he had been using it for twenty years:

℞ Iodin. pur.,	℥ iiss.
Iodid. potassi,	℥ ss.
Spt. rectificat.,	f ℥ xii.
Alcohol,	f ℥ iv. Solve.

After employing this tincture for thirteen years, I know no single agent in the local treatment of uterine disorders at all equal to it. It may be used as a stimulant, alterative, counter-irritant, caustic, and as a hemostatic, and for the purpose of exciting absorption of hypertrophied tissue. Its hemostatic properties are of especial utility in the treatment of hemorrhagic endometritis, and after the use of the curette or forceps in the removal of smaller intra-uterine growths, hypertrophies of the glandular and vascular elements of the lining membrane.—*American Practitioner.*

INJURIES OF THE HAND.—Professor Verneuil, (*Courrier Médical*) says, when you have to treat a patient suffering from a hand crushed in any way whatever, take as an absolute rule to cut away nothing, to regulate nothing with the bistoury. He gives the reasons for this, first, that parts which it would appear necessary to cut away, at first regain their shape and usefulness; and secondly, that operations performed two or three months after, when the parts are in a state of absolute calm, give much better results.

MALIGNANT SCARLATINA TREATED BY SALICYLIC ACID.—A recent number of the *Berliner Klinische Wochenschrift* contains an account of a severe case of malignant scarlatina, in the treatment of which salicylic acid, given internally and injected into the nose produced the happiest results. The patient was a boy, thirteen years of age, who had been suffering for some weeks from symptoms of gastro-enteritis. On the second day of the scarlatinal eruption, diphtheritic patches appeared on the pharynx and nasal cavities, and on the integument of the nose and lips. These were accompanied by ulceration, and a copious discharge from the nose, with a peculiar fetid odor. The pulse was 150; the temperature 105.8°. A grain of salicylic acid was administered every hour, and a solution, containing one grain to the ounce, was injected into the nasal cavities every two hours. Soup, wine, and eggs were freely given, and the patient's body was ordered to be frequently sponged with cold water. Under this treatment the symptoms gradually subsided. After the first injection the fetid odor began to disappear. Altogether the boy took about ninety grains of the acid. He was convalescent in three weeks. Symptoms of intestinal catarrh, apparently caused by the acid, yeilded readily to treatment.—*Med. Times.*

MAKING COLD DRINKS.—A convenient apparatus for the sick-room where cold drinks are wanted is recommended by "Les Mondes." It is made by placing two vessels (presumably of glass), one within the other, and filling the inner vessel with a solution of nitrate of ammonia. The outer vessel may be a goblet, and the inner one is formed in the shape of an inverted-truncated cone, and has a cover that is large enough to cover the goblet. For a goblet of water 150 grammes of the nitrate of ammonia are placed in the inner vessel, and water is added till it is filled. To hasten the action, the solution should be stirred as the water

is put in. The water in the goblet is soon reduced about 22 degrees Fahr., when the inner vessel may be removed. To use the solution again it is only necessary to spread it in the sun till the water evaporates and the nitrate recrystallizes.—*Scribner for Feb.*

UNEQUAL LENGTH OF LOWER LIMBS.—The equality in length of the opposite limbs has hitherto been but little questioned; but Dr. Jarvis Wight of Brooklyn, made a series of sixty observations. which show that inequality of the lower limb is not only common, but the rule. Dr. Hamilton questioned the accuracy of these observations in one of his clinical lectures, and called forth in reply a paper read by Dr. Wight before the Kings County Medical Society. In this paper forty-two additional cases were recorded, giving results very similar to the first series. Some interesting measurements were given, which tended to show that differences existed both in the femora and the tibiæ, and also in the humeri, but no extended number of observations have as yet been made in this direction. Combining these two series of cases, Dr. Wight found inequality in more than three-quarters of the number, varying from one-eighth inch to one inch, averaging one-quarter inch. This explains the great variation in the amount of shortening occurring after fracture of the femur, for, if the longer femur be broken, the "natural inequality" must be subtracted from the actual shortening; or, if the shorter femur be affected, the "natural inequality must be added to the actual shortening to give the "accidental inequality" of the limbs. This would also explain those rare cases in which the fractured femur is longer than its fellow. The fact that these latter cases are not more common than they are, Dr. Wight explains in the following manner: The average shortening after fracture is probably not affected by the natural inequality, for the shorter limb is presumably broken as frequently as the longer; the average shortening he places at five-eighths inch, and, of course, the natural inequality must be greater than this to give lengthening to the fractured femur, and this great inequality is so exceptional that he estimates the changes of lengthening as one in two hundred cases. The article concludes with a letter just received from Dr. Hamilton, from which the following is an extract: I have done you and science an injustice, and I make haste to repair the wrong. Yesterday I, for the first, found time to verify, by actual observation, the correctness of your statement and that of Dr. W. C. Cox, of Philadelphia, that the femora of most adults are unequal in length. In a dozen or more measurements, made with great care by my house-surgeon and myself, a large majority were found of unequal length, and the left limb was generally the longest. I propose to extend my observations and to give them more precision, but I have made enough to satisfy me that you are correct."—*Proceedings of the Medical Society of the County of Kings.*

A NEW OPERATION FOR FRACTURE OF THE PATELLA.—In a case of fracture of the patella at King's College Hospital, Mr. Lister cut down on the fragment, opening the knee joint, cleansed the surfaces of the fragments, and having established an independent drain of horsehair for the knee-joint, drilled the two portions of the patella and tied the fragments together with silver wire, and then closed the wound, which was also drained with horsehair. This operation was performed six weeks ago; the wound, as exposed to-day, was seen to be completely healed, the ends of the silver wire projecting through the scar. The highest temperature that had occurred was 100° Fahr. on the morning after the operation. There has been no disturbance, constitutional or local, and both the wounds healed in about a fortnight. The limb will be kept at rest for another fortnight, when, if union have taken place, the wires will be withdrawn.—*British Med. Jour.*

IODIDE OF ETHYL IN ASTHMA.—Professor Sée has employed inhalations of this substance in five cases of asthma, and the paroxysm was arrested in all very rapidly. In three cases of cardiac dyspnœa it also acted favorably; and in two cases of chronic bronchitis accompanied by dyspnœa the effect, although much less prompt, was advantageous. Quite recently, in a case of œdematous laryngitis, inhalations repeated ten or twelve times a day effected a cure. Like the iodide of potassium, the iodide of ethyl increases the bronchial secretion, and by this hyper-secretion renders it more fluid, and thus favors the admission of air into the pulmonary alveoli. The iodine stimulates the action of the respiratory centre, and, by reason of the greater quantity of blood this is brought into contact with, respiration becomes more easy, being still further aided by the ether in combination with the iodine.

The general conclusions to be drawn from the paper are: 1. Iodide of potassium constitutes the most certain means of curing asthma, whatever its origin may be. 2. The iodide of ethyl relieves the paroxysms of asthmatic dyspnœa with great rapidity. It also appears to act advantageously in cardiac and even in laryngeal dyspnœa.—*London Medical Times and Gazette.*

NEW MODE OF TREATING VARICOCELE.—I find the following simple procedure an efficient method of treating varicocele. Pass a long and strong hair-lip pin between the veins and the scrotal walls, bringing the point of the pin close beneath, but not through, the scrotum; then make the point retrace its course, but passing now behind the veins,

until it emerges near the puncture through which it entered. In a word, by employing that form of acupressure known in the Aberdeen School as the method of retroclusion, a varicocele may be effecually compressed and the veins obliterated. — Dr. BRADLEY, in *Brit. Med. Journal.*

OPERATIVE TREATMENT OF INTERNAL PILES.—Mr. Annandale dlscusses the comparative advantages of the clamp and cautery, and the ligature in the operation for internal piles, in the Edinburgh *Medical Journal* for June, 1877. He claims for the former the following advantages:

1. By means of the clamp and cautery the piles are at once removed, and do not remain in the rectum as dead and putrid masses.

2. The irritation and pain are not so severe or so prolonged as in the operation by ligature.

3. The patient's confinement to bed and to the house is much shorter.

4. The resulting sores heal more quickly, and are attended with less risk of suppuration, and its attendant local and general dangers.—*Medical Record.*

SAW-DUST PADS IN SURGERY.—Dr. Callender, surgeon to St. Bartholomew's (*London Lancet*), September, 1877, has used pads made of pine sawdust, in wounds, amputation, etc., where there is a discharge of pus. Sawdust from hard woods does not answer, because it absorbs too slowly. He first applies carbolized lint, then the pad. He gives a number of cases to illustrate its successful application, and pronounces it "simple, inexpensive, and efficacious."—*Pacific Med. Journal.*

BROWN-SEQUARD'S TREATMENT OF EPILEPSY.

℞ Sodii bromidi.....
Potassii bromidi.....
Ammonii bromidi..... } aa ʒ iij;

Potassii iodidi.....
Ammoniæ iodidi..... } aa ʒ jss;

Ammoniæ sesquicarb..... ʒ j;
Tinct. calumbæ..... ..... fl.ʒ jss;
Aquæ destillat., ad..... fl.ʒ viij. M.

Full dose— One and a half drachms before every meal, and three drachms at bed-time.

HEATING A CITY BY STEAM.—The experiment of heating Lockport, N. Y., by steam has proved, it is claimed, highly successful. Three miles of pipe properly covered with non-conducting material laid under ground through some of the principal streets radiate from a central boiler house, and fifty different dwellings and other edifices, including one large public school building, have been thoroughly warmed all winter. Dwellings more than a mile distant from the steam generator are heated as readily as those next door. Steam meters are provided, so that each consumer pays for what he consumes. It is claimed that the system can be developed so as to furnish steam at fifty pounds pressure transmitted through twenty miles of pipe.

TREATMENT OF EFFUSION INTO THE KNEE-JOINT BY ASPIRATION.—M. Dieulafoy, after studying the history of 150 cases, expresses these conclusions: The evacuation of effusions into the knee-joint, by puncture with the aspirator-needle, is entirely safe, if the operation is properly performed—i. e., if the diameter of the instrument does not exceed that of the No. 2 needle ($1^{mm}.02$). In fact, a needle of this size does no harm. The introduction of air is impossible, since the fluid passes from one closed cavity, the joint, into another, the aspirator, in which a vacuum exists. If accidents follow, they are to be attributed to the employment of an instrument of larger size, to unnecessary manipulation of the joint, or to use of the limb too soon after the puncture. Effusions due to external causes, whether bloody or not, disappear generally after one or two aspirations. Fibro-serous effusions necessitate a more prolonged treatment and from one to six punctures. It is desirable to apply an elastic bandage to the joint before operating, leaving exposed the place of puncture. This point is on the outer side of the patella, two-thirds of an inch from its border, and on a level with its upper surface. After removal of the fluid, compression should be made by means of a bandage over a layer of cotton. In but one of 150 cases has any accident supervened.—*Gaz. Hebd.*, 1878, No. 8.—*N. Y., Med. Journal.*

INOCULABILITY OF MALIGNANT GROWTHS.—Novinski (Inaug. Diss., St., Petersburg 1877) states the following conclusions as the result of many experiments on dogs and horses: 1. There is no doubt as to the posibility of inoculating medullary carcinoma and myxo-sarcoma. It is accomplished by means of the smallest possible incision in the skin (5^{mm} long), and the insertion of fresh portions of the tumor. 2. The piece to be inserted should not exceed two or three millimetres in circumference. 3. The elements of carcinomatous tumors act probably as infecting agents when thus placed in the healthy tissues. 4. The conditions essential to the success of the experiment are the selection of animals of the same species, and tissues of the same sort as those in which the growths exists. 5. Fatty degeneration is more active in the inoculated growths than in the "mother-tumors." 6. In all successful inoculations the wound healed by first intention, but suppuration ensued on the degeneration of the inoculated portion.—*Centralblatt für Chirurgie*, No. 12, 1877. W. T. B.

IT is intended to hold a public celebration of the completion of the fortieth year of professorship of Dr. Schwann, at Liége, in the end of June.

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science
Issued Promptly on the First of each Month.

Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; J. M. BALDWIN, 805 Broadway, New York, and BALLIERE, TINDALL & COX, 20 King William street, Strand, London, England.

TORONTO, JUNE 1, 1878.

BRITISH MEDICAL COUNCIL.

The meeting of the British Medical Council, was held this year earlier than usual, in order to discuss the Bill to amend the Medical Act of 1858, now before the House of Lords. The session lasted seven days. The principal topic was the amendment bill, and especially that part of it relating to conjoint examining boards. Dr. Humphrey, representative for the University of Cambridge, moved a resolution in favour of the establishment of such boards. In this he was supported by the English, and opposed by all the Scottish members of the council. The objections urged were, that uniformity of examination was not attainable and not desirable, as it would tend to lower the standard of professional education; that the holding of examinations in different parts of the kingdom by a single board would be attended with great difficulty, and that the revenue of the Scottish Universities, the greater part of which is applied to the improvement of the means of teaching, would be seriously impaired. The resolution was carried by a majority of 14 to 10 The clause relating to the recognition of Colonial degrees and diplomas was carried after some discussion as to the time of probation, some objecting to ten years, as proposed in the bill as too long. It was finally decided, to omit all reference to the time during which a person had been in practice in a British possession after the conferring of his diploma.

The clause relating to the licensing of mid-wives, was discussed and generally approved, except that the fee £5. was thought to be too high, and that locally conducted examinations and local registers would be sufficient.

In regard to female practitioners of medicine, it was the opinion of the council that education and examination of females should be separate from that of males; the remaining portions of the Bill were generally approved.

INJURIES TO THE BRAIN.

Delicate as is the organization of the brain it is surprising often, from what extent of injury it will recover; and in some cases not only without permanent injury, but with permanent advantage.

A case of injury to the brain occured some years ago, in which a boy in splitting wood, carelessly drove the blade of an axe quite through the back of the skull, laying open the occipital and part of the parietal bones and causing a deep incised wound of the brain substance. A quantity of brain substance escaped, but nevertheless the sufferer, above fifty years of age, made a good recovery and was as bright intellectually as ever before.

Another case is on record of a man who lost half his brain through suppuration of the skull, but who preserved his intellectual faculties until death. Bullets have been lodged in the brain for years without much apparent inconvenience, and operations for the extraction of foreign bodies have been undertaken without injury or loss of brain power. At the present time there is in the Montreal General Hospital, a young man with a pistol bullet in his brain, from which he is slowly recovering without any apparent damage. There is no suffering, and his case promises to result favourably.

It is difficult to presume how great an injury the brain may sustain, and yet recover from, in view of some of the cases recorded. It is narrated of a stable boy of dull capacity, that his recovery from a kick of a horse which necessitated the removal of a portion of the cranium was attended with entire relief from fits to which he had been subject, and a general sharpening of his mental faculties. It is stated of Pope Clement VI, that he owed an improvement in his memory to a slight concussion of the brain; and a child born an idiot was said to have gained his senses after a severe blow upon his head, and lived to become a clever barrister. Another instance is recorded in which a youth became most active in intellectual capacity, after a concussion of the brain received by a fall from a horse, and became an able scientist and physician.

We note these recoveries not as the rule, but as

exceptions, to show how great an injury the brain may sustain without permanent damage, and yet no organ is more sensitive or requires more delicate care and treatment. The surgeon's motto in treating brain injuries may safely be *nil desperandum*, while in view of the relief to idiotcy recently reported in this journal, as the result of relief of pressure by the operation of trephining, we may wisely wait the development of events, to show what surgical skill or human device can accomplish, for the improvement of defective brain conditions and the relief of brain injuries, before asking the question, what next?

NEW INSTRUMENTS AND APPLIANCES.

We have received the quarterly report of Messrs. Burgoyne, Burbidge & Co., London, Eng. Of a list of novelties and specialties, among the most prominently useful for country practitioners, we notice a new pocket Magneto-electric machine, enclosed in a small mahogany case, five inches long by three inches wide, admirably adapted for carrying in the pocket. In intensity it is equal to machines four times its size, and in working, noiseless. Price 21 shillings. A new speculum vaginæ, the novelty of which is in the economy of space, by arranging for the supply of a number of instruments, in constant request by the obstetrician, without any increase in the bulk of the speculum. The speculum consists of two tapered metal tubes, highly polished for reflection, fitting the one within the other, and capable of being used independently, thus forming two specula of consecutive sizes. Both have a lateral opening; the inner one may by rotation close that of the other wholly or in part, so that any desired surface of the vaginal walls can be exposed for inspection or operation. The plug fits accurately the inner speculum, and has its end coned to facilitate introduction. It is closed at its larger extremity by a movable metal cap, which serves as a reflector for a candle lamp. The complete speculum is enclosed in a leather case, and occupies with the following instruments no more space than an ordinary Ferguson's speculum, viz.; Simpson's sound, united by a screw or hinge joint to a fenestrated elevator; port caustique; lancet, and sponge holder, each fitting into a porcupine quill handle of suitable length; candle lamp and reflector; sponge and laminaria tents. Another new and useful instrument is a portable subcutaneous syringe, set in aluminium with caps and bottles. Dr. Batten's urinary test case, supplied by this firm for thirty shillings, is thus noticed in the London Lancet, for December, 1877.

"We have no hesitation in bringing Dr. Batten's, very ingenious invention before our readers. It seems to fulfil a real want; and an actual inspection of the apparatus has shown us how large an amount of care and thought has been bestowed both by the inventor and manufacturers, on the perfection of this addition to the armamentarium, which the busy practitioner finds it necessary to stow in his pockets or in his carriage. Dr. Batten's improvement consists in an aluminium case about four inches long and half an inch in diameter, resembling in appearance the ordinary pocket caustic holder, and similarly divided into two compartments. The smaller compartment has within it, three vulcanite specific gravity beads, marking the extreme and mean specific gravity of urine. The larger compartment contains a test tube, within which are three or four capillary tubes, hermetically sealed, charged with nitric acid, and a bottle for Fehling's test solution. This bottle is closed with an india rubber stopper, upon which the alkali has no action, and hence the copper solution will keep good and clear in it, as long as may be required. The screw junction uniting the two parts of the case is itself hollow, and holds excluded from the air the red and blue litmus paper. A wine glass and a candle or lamp which can always be obtained are all that can be further required. The specific gravity beads will be found to tell the specific gravity accurately, whilst they have the advantage over the urinometer, that a very small quantity of urine will be sufficient for the purpose."

POST MORTEM EXAMINATIONS.

A case lately occurred in this city, in which, owing to the perfunctory manner in which the post mortem examination was conducted, and which we fear is too often the case, almost lead to the casting of an unmerited slur, upon, so far as we know, a respectable young man. We allude to the case of Mr. Shea, who fell down a flight of unprotected stairs in a dark night, and was afterwards

picked up in what was supposed to be a state of intoxication, and conveyed to the nearest police station, where, after vomiting several times he died, apparently from suffocation. An inquest and *post mortem* followed. It was shown in the evidence, that the young man was not addicted to drinking, although he had taken some that evening. The medical gentlemen who performed the post mortem, found the trachea and larynx completely filled with vomited matters, which they considered sufficient cause of death without examining further.

The theory therefore was, that the young man had been intoxicated, and that in vomiting suffocation had taken place from the passage of the vomited matters into the larynx and trachea, and a verdict was rendered in accordance with this theory. The undertaker in placing the body in the coffin, however, discovered that the neck was less rigid than usual, and said that he thought the man's neck was broken. This was communicated to the coroner, who, immediately ordered the body to be exhumed and another autopsy to be made, when it was discovered that there was dislocation and fracture of three of the cervical vertebræ.

We do not allude to this case with any desire to throw blame on the gentlemen who performed the autopsy; they only did what is too commonly done in post mortem examinations, rested satisfied when they had found, what under the circumstances seemed, a sufficient cause of death. The lesson which this case teaches, however, will we hope, not soon be lost, and if it has the effect of making medical men more careful and thorough in their examination into the cause of death, both the profession and the public will be the gainers.

TORONTO MEDICAL SOCIETY.

The first regular meeting was held on the 16th ult. Dr. Workman, as president opened the proceedings with an admirable inaugural address. To those who know him, and there are but few members of the profession in the Dominion who do not, a complimentary mention would appear unnecessary, as there are few if any, who in a very long series of years have distinguished themselves more honourably by zeal for the advancement of medical science, and also, for the interests of the profession. The address was most creditable, alike to the head and heart of the author, and gave unbounded satisfaction to the body to whom it was addressed as worthy of his reputation as an accomplished writer. The doctor alluded to the gratifying fact of the Society including in its ranks, many young members of the profession who gave earnest of a successful future; who were not converts to the doctrine, that a man's success as a practitioner is often in an inverse ratio to his scientific attainments; that scientific knowledge is not incompatible with practical skill, and the speedy acquirement of a lucrative practice, not the only aim of those entering the profession.

Reports of Societies.

TORONTO MEDICAL SOCIETY.

An adjourned meeting of the above society was held in the Canadian Institute on the 4th ult., Dr. Joseph Workman in the chair, and Dr. J. E. Graham, secretary, *pro. tem.* After the disposal of some routine business the proposed "Constitution and By-laws" were read and approved of, subject to one or two amendments. The constitution shows that the objects of the Society are as follows:—For the discussion of purely scientific subjects connected with the profession; for the reading and discussion of papers; for the relation of cases in practice, and for the exhibition of pathological specimens. Under the By-laws it is shown *inter alia:* (1) that seven members shall form a quorum; (2) that the annual subscription shall be $3.00; (3) that the Society shall have power to expel any member found guilty of unprofessional conduct; (4) that the Society meet every alternate Thursday The Secretary intimated that between forty and fifty gentlemen had already joined. The meeting then proceeded to the election of officers, when the following were elected by ballot:—President, Dr. Workman; 1st Vice-President, Dr. Canniff; 2nd Vice-President, Dr. Covernton; Recording Secretary, Dr. J. E. Graham; Corresponding Secretary, Dr. Cameron; Treasurer, Dr. Macfarlane; Councillors, Dr. George Wright, Dr. Fulton, and Dr. Burns.

FIRST REGULAR MEETING.

THE PRESIDENT'S INAUGURAL ADDRESS.

Gentlemen;—That youth has its many embarrassments and difficulties to struggle against is, or has

been, I doubt not, the disciplinary experience of all whom I now have the honour of addressing; but that old age brings to its subject its own peculair heavy penalties, is a stern fact of the reality of which very few who have, like myself, considerably exceeded the scriptural allotment of human life, are permitted to be ignorant. Among the many perplexities, incident to senile decadence, few can be more distracting than that which is too often devolved upon it, by the diffidence, or the ill-considered deference of vigorous juvenility.

Whilst, gentlemen, not only fully sensible of the honour conferred upon me, by your nomination of me to the office of First-President of your Society, but also heartily grateful for this manifestation of your kind regard, I cannot evade the conviction that you have placed me in a position which would have been more fitly, and more efficiently occupied by some one of less advanced years, possessing, as I know many of you do, superior scientific and literary qualifications; but, as I have already said, old age brings to its subject its allotted penalties, which it may be better to bear with submissive equanimity, than bootlessly strive to escape; I therefore have deemed it my prudent duty, humbly to bow to the decision of your high court, and to accept, with all becoming diffidence, the hazardous responsibilities involved in the umpirage of your future proceedings, anxiously, at the same time, hoping that you will all make generous and charitable allowance for those errors or mistakes into which, as a member of the medical profession, for so many years monastically isolated from the general faculty, and devoted to a specialty, the duties and study of which left me very little time for other mental work, I must inevitably too often fall. Of one encouraging fact, however, I feel abundantly assured, and that is, that whatever may be my short-comings, you will do me the justice of ascribing them, never to my heart, but always to the infirmities, or, if you so please, to the vanities of my head.

Never, in my long professional career, have I hailed any event with more heartfelt pleasure, than the announcement made to me, a few weeks ago, by an esteemed professional brother, that a number of energetic and talented young practitioners had resolved upon the endeavour of organizing a Medical Society in this city, which I may very safely designate the literary Athens of Canada, and, perhaps not unjustly, the metropolis of medical education.

It had very long been to me a matter of deep regret, if not of mortifying astonishment, that a city so large and wealthy as Toronto, and embracing in its energetic and intelligent population, an array of medical practitioners and professors, possessing qualifications not surpassed by those of any similar body in Canada, or perhaps on this continent, should yet be unable to pride itself on the existence of a thriving and useful Medical Society. It is very true, "and pity 'tis, 'tis true," that in days long past, as well as in the days less remote, ineffectual efforts were made by a few zealous gentlemen of the profession to organize and perpetuate societies similar to that which we now venture to launch into existence. I had the privilege of being a pecuniary subscriber for several years to the oldest one. Though it lived but a few years, it died literally and unequivocally from old age, for it numbered in its membership but a very meagre per centage of young men. Of the last defunct conception I know almost nothing. We have, however, been informed by Dr. Riddel that it died of starvation, and we are bound to accept as canonical the dictum of the coroner, yet I wish he had told us whether he held an inquest on the defunct, so as to be able to inform us of the verdict of the jury, based on the *post-mortem* revelations of the organs of alimentation. I have a strong suspicion that the gall bladder was in a very abnormal state, and that the poor thing fell a victim to slop milk and colloquial diarrhœa; and therefore would I most earnestly urge upon our present infant organization the vital expediency of shunning these fearful factors of mortality. Give your new-born creature good pure milk, save it from windy-colic, and keep it out of the arms of old wizened crones, whose low temperature and senile foul breath, would be sure to poison and freeze its young blood, and sooner or later (not, indeed, it should be hoped, *very* late, for marasmus is a most pitiable malady), send it to its grave.

You, gentlemen, must depend mainly on your own youthful vigorous efforts, for the successful working of your society. If through timidity, overweening modesty, or, pardon the soft impeachment, cultivated indolence, you stand back from the work, trusting to the contributions of your older brethren, you will be doomed to weep over the demise of your neglected darling.

Let none hold back because he thinks he has but little to offer, or thinks his little too insignificant to deserve attention. The mite of the poor widow, who cast into the treasury all that she had, even all her living, was valued in Heaven's chancery as greater than all that was paid in by the rich. It must be a very poor fact indeed, in medical science, that will be held as of no value by enlightened and honourable members of our profession. Nothing is, to great and penetrating minds, so little as to prove unsuggestive of great inferences. To the mind of a Newton, a Harvey, a Jenner, a Huntley, or a Tyndal, no fact, however trivial or commonplace, was ever so mean, asn ot to evoke serious and prolific reflection. Sneering was an indulgence far too extravagent for these hard-working, deep-seeing men.

Many of our long experienced friends, whose co-operation would be most welcome, and might be

most profitable, have really no spare time to bestow on matters outside their heavy daily routine; and some of them may be suffering under that golden plethora, which so often narcotizes the mental powers even of those who once gave promise of high public usefulness.

A few, possibly, lack inclination to identify themselves with any enterprise in which their juniors are to be active co-partners. There may be others who already sit on so lofty a perch, that even an occasional descent into fellowship with the combless fledglings of the barn yard, would be a compromise of dignity nothing short of professional suicide.

You must neither feel angry with such outsiders, nor weep over their misfortune. Perhaps some of them may in time repent, and when they see that you are a real, live, strong and full-blooded thing, they may not feel ashamed to recognize you. There is an old and very significant proverb, which says:—"When you are able to swim, many will offer to hold you up by the chin." Swim clear of such benefactors in dangerous waters, for some of them may need your aid more than you do theirs.

Do I address any one who has come through ever so little of life without having learned the meaning of those chilling words, "a cold shoulder?" If any such angel is now within hearing, I would like immensely that he would step to the front and let us all have a square look at his smooth forehead and smile-clad face, for he must be something more than mortal, and not much less than devil. Never yet was there ushered into life any enterprise, great or small, however successful it ultimately proved, but had to encounter many a cold shoulder. What of that? The cold shoulder of Dr. Lardner, and a thousand of his admirers, did not kill ocean steam navigation. The Atlantic cable is to-day a mighty living fact, despite the croakings of the birds of ill omen. Many a cold shoulder had Hamilton Merritt to meet before the first sod of the Welland canal was cut; and which of you has not read of the tribulation of that greatest of earthly benefactors to humanity—the immortal Dr. Jenner?

A strong shoulder, governed by a strong will and a fixed purpose, will overpower a regiment of cold shoulders. Have *you* courage to exert *yours?* Then lay them to the wheel and Jupiter will help you; Jupiter always helps those who help themselves, but he will not move a finger to help those who expect *him* to do all the dragging.

I am sure it is quite unnecessary that I should have to remind you, that the declared object and the sole legitimate purpose of your organization is the discussion of scientific subjects, and that your earnest desire is to advance your own mutual improvement in the healing art. All matters or questions, foreign to these noble ends, must ever be excluded from your proceedings; and all unpleasant feelings arising from professional misunderstandings or difficulties must be left outside the door of your assembly room. Each of you may love his Cæsar or his Pompey as ardently as he likes, but here he must love Rome more. Here let all know and feel that we stand on a brotherly, catholic platform, and that we are resolved to ignore all the lines and limits of sectionality.

And, finally, gentlemen, if you earnestly and honourably carry out your initiatory resolution, and devote to your meetings as much time as your professional exigencies will permit, I now, on the threshold of your existence, predict that your Society will live to do honour to its founders, to the profession of medicine, and to the classic city by whose name you have most appropriately called it.

Dr. Grasett exhibited a very interesting pathological preparation of a perforating ulcer of the stomach, giving at the same time a graphic history of the case dating back many years. Dr. Cameron presented a specimen of uterine fibroid extruded after long continued administration of secale cornutum. Dr. Alt read a long and able paper on a successful operation for endothelial tumor of the orbit, attended with epileptic convulsions, the convulsions ceasing after the removal of the globe. Dr. Zimmerman, Canniff and other members promised papers for the next meeting.

ERIE AND NIAGARA ELECTORAL DIVISION MEDICAL ASSOCIATION.—A Medical Association for this division was formed at Caledonia on 22 inst. The following are the officers elected.

President, Dr. Henwood, Brantford.

Vice-Presidents.—For Haldimand, Dr. Hillyer, Caledonia; for Brant, Dr. Dee, Tuscarora; for Lincoln, Dr. Jukes, St. Catharines; for Monk, Dr. McCallum, Dunnville; for Welland, Dr. Schooley, Welland. Secretary-Treasurer, Dr. William T. Harris, Brantford.

Amongst other matters attended to at the first meeting was the examination and approval of tariffs and fees which were presented from Brant, and Haldimand, which tariffs the secretary was requested to have submitted to the medical council at its next meeting. The question of the desirability of forming a Provincial Medical Association for Ontario with city and country branches, was brought before the society by Dr. Griffin of Brantford, and a resolution was passed approving of this step. The President, Drs. Baxter, and Griffin, were appointed a committee to communicate with

existing societies on this point, and take such other action as they may deem expedient to that end.

College of Physicians and Surgeons of Ontario.—The following gentlemen have received the Diploma and License of this body :—

J. Adair, J. Algie, T. H. Ashby, A. M. Baines, H. Bennett, Wm. H. Bentley, J. D. Bonnar, F. Burt, J. D. Cameron, A. D. Campbell, C. V. Clark, G. Clinton, S. A. Cornell, W. Cornell, H. A. Craig; W. A. Dafoe, H. A. deLom, W. A. Doupe, F. J. Duggan, J. Dunfield, H. A. Evans, D. W. Faulkner, J. M. Forbes, J. B. Fraser. S. H. Glasgow, W. F. G. Grant, M. F. Gilmour, J. H. Gardiner, J. W. Groves, E. A. Gravely, F. V. S. Greenwood, V. D. Graham, J. C. Hartman, F. M. Howe, J. B. Howell, T. C. St. V. Hutchinson, J. R. Jones, D. Jamieson, G. A. Kennedy, W. B. Kennedy, P. C. Kidd, G. B. Kirke, O. Langlois, M. C. Langstaff, W. Lehman, J. H. Lowe, P. Lynch, F. W. Lewis, J. MacArthur, H. Meek, J. Morrison, T. Millman, F. M. Mills, D. C. McCarthy, M. McCrimmon, J. M. McCort, G. R. McDonagh, J. McGrath, W. McKay, A. McKelvey, J. McLellan, J. M. Neilson, A. Ogg, J. R. Pomeroy, R. A. Pyne, J. P. Rankin, G. Riddall, J. W. Ross, W. T. Robson, A. Robinson, R. Reddick, C. Shupe, C. Sheard, M. Stalker, U. M. Stanley, D. F. Smith, J. Vanderberg, A. Wilson, D. H. Wilson—Total 79. Of these 33 were from Trinity Medical School, 22 from the Toronto School of Medicine, and the balance from Montreal and Kingston. Of the 33 from Trinity Medical School, 30 passed without an oral examination. The exclamation of Abernethy to his class, is not inappropriate here :—"God bless you, gentlemen! What is to become of you all?" There were 320 students up before the Board, for examination in the different years. We do not envy the examiners, but rather sympathize with them ; their task is anything but light The Registrar, Dr. Pyne, has also been overworked during the past month. He has, however, we are happy to say, discharged his most onerous duties to the satisfaction of all concerned.

Trinity Medical School.—The annual meeting for the conferring of diplomas, etc. and the awarding of medals. scholarships and certificates of honor, took place in the college buildings Spruce st. on the 4th ult. Prof. Bethune presided. The scholarships in the first year were presented by Prof. Kirkland. Mr. Hatton received the 1st, first year's scholarship ($50), and Mr. Beatty the 2nd, ($30). The candidates in the 2nd year were presented by Prof. Robertson. The honor men were, Messrs McDiarmid, Chappel, Duck, Parke, Thuresson, and Welford. Prof. Kennedy presented the scholarship in this year to McDiarmid ($60) and certificates of honor to the other gentlemen above mentioned.

Prof. Fulton presented the following gentlemen for the diploma and fellowship degree, viz., Messrs Ashby, Baines, Bonnar, Dafoe, DeLom, Dunfield, Groves, Rankin, Sheard, Stanley, and D. H. Wilson, The gentlemen subscribed to their profession and received their diplomas. Certificates of honor were presented to Messrs Dunfield, Groves, Rankin, and Stanley, by Prof. Temple. The "medical faculty" gold medal, was presented to Mr. Sheard by Dr. Canniff; and the "medical faculty" silver medal to Mr. D. H. Wilson, by Prof. Coventon. Prof. Geikie presented the "Trinity" gold medal to Mr. Dafoe, and Prof. Bethune the "Trinity" silver medal, to Mr. Bonnar. These medals are the highest honors in the school, and were given to the two students standing first and second respectively in all the branches, primary and final.

University of Toronto Medical Examinations.—Honors.—The following are the names of the honor men :—

Starr gold medal, J. D. Bonnar, Trinity Medical School. First Starr silver medal, H. Meek, Trinity Medical School. Second Starr silver medal, Griffin, Toronto Medical School.

University gold medal, Griffin, Toronto Medical School. First University silver medal, Meek, Trinity Medical School. Second University silver medal, Bonnar, Trinity Medical School. Third University silver medal, Kennedy, Toronto Medical School. Fourth University silver medal, Gardner, Toronto Medical School.

Scholarships.—3rd year, Burt ; 2nd year, Cross, 1st year, Duncan & Hamill. Third year's examination ; Messrs Burt and Sheard. Second year ; Messrs Anderson, Cross, Chappell, Fisher, Hoig, Meldrum, McDiarmid, Spencer and Welford. First year ; Messrs Aikins, Bingham, J. C. Burt, Duncan, Ferguson, Hamill, Howitt, Haken, Milne, Sweetman, Simpson, Thompson, Tracey, and Wilcox.

PRIMARY EXAMINATION;—Messrs Ames, Anderson, Armstrong, Black, Bosonko, Bowman, Boyce, Buchner, Caughlin, Charlton, Chisholm, Clapp, Colton, Dickson, Duck, Glendining, Gould, Green, Hamilton, Head, Hyde, Kidd, Leslie, Lindsay, Lowry, Macklin, Mackid, Martin, Montgomery, McCarroll, MacFadden, McKinnon, MacLean, McNamara, Nelles, Nicholson, O'Rielly, Park, Prouse, Radford, Rowe, Shaw, Shepperd, Smith, Stevenson, Sullivan, Sutherland, Teller, Thuresson, Todd, Van Norman, Wallace, White, and Wilson.

Of those who presented themselves for the primary examination, *fourteen* were rejected, *ten* of whom were from the Toronto school of medicine and *four* from Trinity medical school.

FOR THE DEGREE OF M.B.—Messrs Adair, Algie, Ashby, Bonnar, Baines, Bentley, Burton, Clarke, W. Cornell, S. A. Cornell, Dafoe, DeLom, Duggan, Doupe, Gardiner, Glasgow, Griffin, Groves, Hartman, Jamieson, Jones, Kennedy, Langstaff, McCarthy, McGrath, Meek, McKay, Ogg, Pomeroy, Pyne, Rankin, Robson, Robinson, Ross, Stanley, Stalker, A. Wilson, H. Wilson, Vanderburg.—39.

Ninteen were from Trinity medical school, and twenty from the Toronto school of medicine, six were rejected in this examination, *three* from each school.

FOR THE DEGREE OF M.D.;—R. H. Robinson M.B.

UNIVERSITY OF TRINITY COLLEGE CONVOCATION.—The following gentlemen received their degrees, and standing in Trinity College, on the 20th ult:—

M.D.—R. J. McKinnon, D. A. Stewart, A. H. Miller, F. M. Strangways, D. W. Mitchell, S. McArton.

M.B.—H. Meek, J. D. Bonnar, W. A. Dafoe, J. Hartman, W. McKay, W. Cornell, W. H. Doupe, J. W. Groves, D. H. Wilson, J. McGrath, J. Henderson, C. Sheard, U. M. Stanley, J. Rankin, J. Algie, J. Forbes, J. Dunfield, D. Brook, S. A. Cornell, A. Wilson, T. H. Ashby, A. McKelvey, H. A. DeLom, D. L. McCort, A. Baines, J. E. Morrison, M. Stalker, A. Davidson.

PRIMARIES.—G. S. Armstrong, W. W. Boyce, W. B. Duck, T. A. Kidd, C. M. Thuresson, E. S. Wilson, T. J. Park, E. Prouse.

HONOR LIST.—University gold medal, H. Meek; silver do., J. D. Bonnar; certificate of honour, W. A. Dafoe. These honors are awarded to those highest in all the branches. Certificates in final branches—W. McKay, W. Cornell, W. R. Doupe, J. W. Groves, D. H. Wilson, J. McGrath, J. Henderson, C. Sheard, U. M. Stanley, J. Rankin, J. Algie. Certificates in primary branches—G. S. Armstrong, W. W. Boyce, W. B. Duck.

PERSONALS.—Dr. Reginald Harrison, F.R.C.S Eng. surgeon to the Liverpool Royal Infirmary, paid a short visit to Toronto, a few weeks ago. He visited the Toronto General Hospital, and paid a high compliment to the management of that institution, and expressed some surprise to find such a well appointed hospital in Canada. He also visited Montreal and other places in Canada. An article by him on the pessary-catheter, copied from the *London Lancet*, will be found in another page.

Dr. Cameron, formerly house surgeon Montreal Hospital, has returned from an extended visit to the hospitals of the old world, and intends commencing practice in Montreal.

PRIMARY EXAMINATION ROYAL COLLEGE OF SURGEONS, ENG.—W. C. Winskell, M.B. and A. Davidson, M.B. graduates of Trinity College, have successfully passed the primary examination of the Royal College of surgeons, Eng.

MONTREAL MEDICAL LICENSE CASE.—It appears we were in error, in stating in our last issue that the Medical License case was settled. From the report of the president of the College of Physicians and Surgeons of Quebec, delivered to the Board of Governors, at their recent meeting in Montreal, on the 9th ult., we find that "the case came before the Grand Jury in due course, but the crown prosecutor having failed to summon the necessary witnesses, the Grand Jury made a presentment to the court of 'ignoramus'. This presentment leaves the case precisely where it was after the action of the police magistrate, and unless your president is otherwise instructed at this meeting it will be again submitted to the Grand Jury at the next term of Queen's Bench, when measures will be taken to ensure the attendance of the requisite witnesses." The President's report shows that the case is still in abeyance.

TALKING MACHINE.—Mr. Edison is at present exhibiting his wonderful invention, the phonograph

in this city. It is very simple in its construction, consisting of a vibrating plate, a sheet of tin foil, and a crank. This machine which is as simple as a coffee-mill hears a speech or a song, while the crank is turned in one direction, and by reversing it the machine talks, sings, laughs, whistles or coughs so naturally that one can hardly escape the suspicion that there is some ventriloquist hocus-pocus about it, or some one concealed near by, giving utterance to the sounds. The sounds are fixed on the tin foil by the vibrating plate and are stored up until the instrument is reversed, when they are given out with surprising fidelity.

THE CALEDONIA SPRINGS.—This favorite resort for invalids and pleasure seekers is again about to be opened for the season. These sulphur springs of the Lower Ottawa, have been long and favorably known for their efficacy in the treatment of cutaneous, rheumatic and other chronic affections. The large hotel in connection with the springs will be open from June to October. The accomodation is all that can be desired, and many who have been benefited by a short residence here will be glad of the opportunity to again avail themselves of its advantages.

MICHIGAN STATE MEDICAL SOCIETY.—The following resolution to amend the constitution, which has been before this medical society since 1876 and has been the occasion of much angry discussion, was defeated by a vote of 42 to 61, at the meeting at Lansing on the 16th ult., viz; "That no person shall be admitted to membership who practices or professes to practice in accordance with any so-called pathy or sectarian school of medicine, or who has recently graduated from a medical school whose professors teach, or assist in teaching, those who propose to graduate in or practice irregular medicine." The amendment consists in the addition of the last clause, commencing with the words "or who has," etc., and was chiefly intended as an indirect censure upon the medical faculty of the Ann Arbor University for its relations with homœopathy.

RESIGNATIONS.—Dr. Trenholme, has resigned his position as professor of obstetrics in Bishops College, Montreal; and Dr. Fuller, who is about to remove to Grand Rapids, has resigned the Chair of anatomy. We have not yet heard who their successors are.

REMEDY FOR SUMMER COMPLAINT IN CHILDREN.—Dr. W. M. Gross, writes to the *Medical Brief*, that in his opinion the best remedy for cholera infantum, or summer complaint in children, is calcined radix rhei. He gives it in doses of 5 grains. It is prepared by putting the root in an iron vessel, and burning it until easily pulverized.

AMERICAN MEDICAL ASSOCIATION.—The annual meeting of the American Medical Association will be held in Buffalo N. Y., on the 4th of June. A large attendance is expected; we trust many of our medical friends will avail themselves of the opportunity thus afforded of attending this meeting.

CHLORAL HYDRATE FOR REMOVAL OF WARTS.—Dr. Craig of Montreal recommends a twenty grain solution of chloral hydrate for the painless removal of warts.

FIELD FOR MILITARY SURGERY.—Montreal would seem to be a most excellent field for military surgery, as there have been so many cases of shooting in the streets at night.

MEDICAL COUNCIL OF ONTARIO.—The annual meeting of the Ontario medical council will commence on Tuesday the 11th inst.

APPOINTMENT.—The professors of the College of France have recommended Dr. Brown-Sequard for the chair of Physiology made vacant by the death of Claude Bernard.

MR. ERASMUS WILSON, F.R.S., has resigned the Professorship of Dermatology which he so generously founded at the College of Surgeons. It is probable that Mr. Jonathan Hutchinson will succeed him in the chair.

CORONER;—J. Adams, M.D., of Thorold, to be an associate coroner for the Co. Welland.

Births, Marriages, Deaths.

In Toronto on the 25th of April, Geo. M. Farewell, M.D., C.M., of Queensville, Ont., to Hannah B., daughter of the late Joseph Wilson, Esq., Duffin's Creek.

In Toronto, on the 4th ult., Dr. Thomas Henry, aged 70 years.

In Streetsville on the 19th ult., Chas. A. Paterson, M.D., in the 29th year of his age.

THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

VOL. X. TORONTO, JULY 1ST, 1878. NO. 11.

Original Communications.

MALPOSITION OF THE TESTICLE, COMPLICATED WITH INGUNIAL HERNIA, REQUIRING CASTRATION.

BY V. A. BROWN, M.D., L.R.C.S., ENG., LONDON.

The subject of hernia is, always has been, and ever will be, one of interest and anxiety to the practical surgeon; its various forms and occasional anomalies, as in the case I am about to describe, all tend to invest it with the gravest importance.

An imperfect descent of the testicle complicated with hernia, I need hardly say is an unpleasant complication. What to do in each case is still a *questio sub judice et vexata*. What is the course to be adopted with regard to the testicle? Is it to be left there, and an appropriate truss (if such a one could ever be properly made) to be worn over the seat of the hernia? Or, should it be removed, in order that the formidable obstacle which it presents to the application of a proper truss might be removed, and thus the future safety of the patient secured?

These were the points which suggested themselves to my mind, when I came to the consideration of what was to be done in the following very interesting case, which has lately come before me. The subject is a young man æt. 25, stout and healthy, lately married. When four years old he was ruptured on the right side, for which he was trussed for more than two or three years, when the truss was discontinued as he was considered cured. Such, however, did not prove to be the case, as the hernia recurred when he grew up, sometimes requiring considerable trouble in its reduction. It was noticed also, that the testicle was not in its natural situation in the scrotum. He often tried to wear a truss, but never could, on account of the severe pain and sickening sensation it invariably caused. He went on for some years in this way, the hernia occasionally coming down, but always being capable of being reduced until a few days ago. March 14th it descended, and he could not succeed as usual in putting it back. He remained in this state for two days, when he came to consult me. On examination I found a direct inguinal hernia, with the right testis behind and outside, lying in the inguinal canal opposite the external ring. The hernia was about the size of a hen's egg, very tense and very tender. The testicle could be distinctly made out; it appeared to be considerably atrophied (not half the size of its fellow), and could be pushed up the inguinal canal as far as the internal ring, where it was brought to a stop. I reluctantly tried the taxis for a short time, but the parts were very tender, and as other symptoms were not very urgent, I determined not to persist but to try the application of a cold evaporating lotion, composed of muriate of ammonia, spts. vin. rectificat. vinegar and water, and await results.

In the meantime I had to arrange what course should be followed in case of a reduction being unsuccessful. The conclusion I came to, was to remove the testicle at the time of the operation for the relief of the strangulation. The following reasons influenced me in this:—1st. It was atrophied, and consequently useless. 2nd. Paget says undescended testicles are very prone to cancer. 3rd. Its removal ensured the proper application of a truss, without which he was always carrying his life in his hand. Indeed, I extended the reasoning further, and determined to propose castration, even if the hernia became reduced.

The lotion was sedulously applied for eight hours, when I again visited him. I then found that the hernia had disappeared, but that the testicle was still *in situ*. The inguinal region was still very tender; accordingly he was directed to continue the lotion. The following day his bowels were moved, and in a few days more he became convalescent. When he was thoroughly recovered I broached the subject, and laid before him the narrow escape from a strangulated hernia he just had, and that at any time a similar danger might again arise. He was always going about with his life, as it were, in his hands. The great danger arose chiefly from the abnormal position of the undescended testicle, which prevented a truss from being worn; as long as it was there he never could

wear one with any comfort or safety. The testicle was all wasted, and consequently incapable of functional activity, and its loss would not render him impotent. According to the opinion of the best and latest authorities, undescended testicles were especially prone to cancer, and although its removal would be attended perhaps with danger, still, taking everything into consideration, the wisest course for him was to take the risk and have it removed. After hearing and considering these several reasons he consented.

The operation was performed on the 18th of March. I was assisted by Drs. Niven and Harper, of this city; the latter administered the chloroform. The testicle lay in the inguinal canal, opposite the external ring, and was about the size of a small marble. Alongside its inner border, and firmly attached to it, was a thick piece of tissue, very similar to a piece of intestine; this had to be very carefully separated from the testicle and its coverings, before the cord could be made out and secured. When this was done it was cut across, the usual precautions being first adopted, and tied *en masse*. The tissue, when examined, was found to be the sac of the hernia in a thickened condition; a ligature was necessary on the cut portion of it, on account of troublesome hemorrhage. When the testicle was removed, the vaginal sac came very plainly into view, and a broad director could easily be passed up as far as the internal ring, where it was stopped. The wound was stitched up with silver wire sutures, and a compress of lint soaked in carbolic oil, 1 to 16 laid over it, and the whole enclosed in a spica bandage.

In two hours a good deal of secondary hemorrhage occurred, which was arrested only after an enlargement of the incision upwards, so as to get at the cord which had retracted up the canal, in order to apply a second ligature above the first. This effectually stopped the hemorrhage. Cold iced-water was then applied over the wound, which was not restitched. He was then given some brandy and beef tea, as he was very weak, and at night pul. opii gr. j. was ordered.

19th. Had a tolerable night; pulse, 100; no sickness; considerable tenderness and tumefaction over the part; no hemorrhage; abdomen above Pouparts ligament all right. Cold water dressing to be continued. Ordered pul. opii gr. i., calomel gr. i. every four hours; low gruel diet, and to be kept very quiet.

20th. Going on well; pulse, 90; tongue rather coated; bowels not yet opened; tenderness and swelling not so great; no abdominal pain above Poupart's ligament; no tendency to nausea; continue treatment.

21st. Much the same; suppuration commencing; spongio-piline dipped in water, was substituted for cold water dressing; bowels still confined; no nausea. Pul. cal. et opii every six hours.

22nd. Had a good night; pulse, 94; wound discharging well; spongio-piline too heavy; lint and oiled silk was substituted. An enema of gruel, salt, and castor oil was administered in the morning, and, although repeated in the middle of the day, had no effect. He was then ordered two pills of pil. col. et hydrarg. at bedtime, to be followed by a dose of castor oil in the morning if necessary. Abdomen is soft; voids urine well. Omit pul. cal. et opii.

23rd. Bowels opened this morning without oil; pulse, 80; wound discharging well, and swelling much reduced: considerable fetor; all danger of peritonitis over. Lotion of permanganate of pot. ash, grs. v. ad. ℥i to be applied.

24th. Is better this morning; pulse, 80; had several passages from the bowels yesterday. Pul. opii gr. i. to be taken.

25th. Same; cataplasm of linseed meal to be applied; no passage from the bowels to-day.

26th. Same; had a good motion this morning; feels much better; wound granulating; no fetor.

27th—28th. Improving; wound contracting; bowels open every day; continue lotion.

30th. Much the same; if the ligatures were away the wound would soon heal.

April 5th. Ligatures came away on the 3rd inst., the sixteenth day after the operation, and the wound healed in a few days.

Remarks.—There are many points of interest in this case. First, it is to be noticed that the hernia was not congenital—not having been discovered until he was four years of age. Had it been congenital, the vaginal would then have been the hernial sac, a contingency which would have been so much the worse for the operation, as there is much greater danger of peritonitis in such cases on account of the communication with the abdominal cavity being enclosed. It is important, therefore, in forming a diagnosis, to be clearly satisfied whether the hernial protrusion is congenital or not

—from it a fair prognosis easily becomes recognizable—and with many, perhaps, the propriety of an operation justifiable.

2nd. It is very necessary to be clear, that there is both a hernia and a testis contained in the tumor, prior to any attempt at taxis. Sometimes the swelling contains only an inflamed testis, in this case it was unmistakable that it contained both.

3rd. At the operation it is expedient that great precaution should be exercised during the separation of the cord, prior to its ligation; to be thoroughly satisfied which is the sac and which the testis, and then to take care not to open the sac, which would render the operation as dangerous as if the hernia was congenital.

4th. As to the mode of treating the cord. This is a matter of choice; many, no doubt, would prefer the old plan of separation of the spermatic arteries, and then ligation, as being safer, and say that perhaps no secondary hemorrhage would have taken place in this case had it been done. Still, although it caused me a good deal of annoyance, and a considerable thrombus arose in consequence, I should always tie the cord *en masse*. It certainly is much quicker, and I think quite as safe. I have often performed the operation, and have always secured it in this manner without any trouble.

In conclusion, what is the probability of a radical cure in this and similar cases? Is it justifiable on the part of the surgeon, to hold out this as one of the reasons for the patient's consent to an operation? In answer, I would say that there is every reasonable chance that the inflammatory action which, more or less, always attends these cases, may possibly close the communication with the abdominal cavity. I shall particularly watch the case, and report accordingly, as I consider this a very important point.

INTRA-UTERINE MEDICATION

BY J. CATTERMOLE, M.D., L.S.A., ENG., LONDON, ONT.

Braithwaite's Retrospect of July, 1873, contains a very able and instructive paper by Dr. Loombe Atthill, read before the Medical Society of Dublin, on intra-uterine medication, which relates more particularly to the topical application of fuming nitric acid to the uterine cavity. The doctor very justly regarded it as the best and most efficacious remedy, in the treatment of several affections common to the interior of the womb, and for his strong advocacy of this invaluable aid in the face of much vituperative and determined opposition, he is entitled to the thanks of the profession.

It is also due to Dr. Atthill to state that he devised a very handy little speculum, by which, after dilatation with tents, sufficient cauterization may be effected in many cases. How long diseases of the womb have been treated by strong caustics is somewhat uncertain, but for the last quarter of a century in America, the British Islands, and other parts of Europe, it is well known that practitioners have applied these remedies to the interior of the uterus, and usually by means of a swab, or in a diluted form by injection. The latter method is sometimes productive of unpleasant symptoms, whilst the former, if carefully done, is generally safe, seldom followed by anything more than a little uneasiness, not often amounting to pain. It must be admitted, however, that by passing a swab charged with its medicament quickly through the cervical canal much of the remedy must be rubbed off before reaching the part intended for its reception. Many years ago, impressed with the necessity of more complete application of the caustic material, I utilized open-ended catheters for the purpose, fitted with stilette-swabs, formed by attaching to their ends lint or cotton wool. This was certainly an improvement on the old plan, but resulted in the destruction of too many instruments.

About four years ago, it occurred to me that tubes of strong glass might be advantageously substituted, as not being likely to be chemically acted on by the material conveyed through them.

A clever chemist in this city prepared three or four of different calibre, varying from two-eighths to five or six-eighths of an inch in diameter, and about nine inches in length. Common catheter stilettes, rigged up with cotton wool or lint, nicely and securely attached to their ends, can be made to act as piston-swabs. On the whole, I find these tubes very far superior to any other contrivance for the purpose. There possibly may be better, if so, I am unacquainted with the fact. Glass tubing is generally kept in great variety by druggists. By means of heat it may be readily converted into almost any shape and form desired. Their ends should be rendered smooth, and each tube may be gently bent at about an inch and a

half from the end to facilitate introduction, which, after due dilatation with sponge or laminaria tents, can be accomplished easily and with the most perfect safety, by any one with a moderate amount of manipulative tact; and in cases where the os uteri and cervical canal are patulous, one of the smaller sized tubes can, without difficulty, be passed without the previous use of tents, and thus the cavity can be mopped ad libitum.

For the treatment of subacute and chronic endometritis, granular and congested conditions of the mucous membrane of the womb, uterine catarrh, and carcinomatous growths above the inner os, where topical treatment is demanded, these little instruments answer an excellent purpose. In post-partum, and other forms of uterine hemorrhage, when solutions of the perchloride of iron are had recourse to, as the dernier ressort, their simultaneous efflux will be rendered certain by using one of the larger sized tubes. I need hardly state that solids can be applied to the uterine cavity with equal facility by the same means.

These little operations may be conveniently managed by placing the patient in the usual obstetrical position, on her left side; a large vaginal speculum may then be passed well up to the os tincæ, and the transit tube, previously warmed and well oiled, slipped through the cervical canal into the uterine cavity. In a few special cases the process may be more readily accomplished by transfixing the anterior lip with a fine tenaculum, and making sufficient traction to straighten the cervix; sometimes instead of an ordinary large, plain speculum the duck-bill instrument of Sims may be more advantageously employed.

POISONING FROM CARBOLIC ACID.

BY J. H. RYAN, M.D., SUSSEX, N.B.

As we do not often meet with cases of poisoning from carbolic acid, I beg leave to submit the following.

Hugh Burns, a laborer, æt. about 40 years, while under the influence of intoxicating liquor, drank from a tin cup, a solution of carbolic acid, which was sitting on the stove in a drug store, May 7th, 1878. The cup contained a strong solution of acid, about 1½ ozs., to water xii, which had been placed there by the druggist for disinfecting purposes. After drinking the acid, the unfortunate man replaced the dish on the stove, and taking a flask of liquor from his pocket, he deliberately proceeded to drink the contents. He then made his exit, and walked to the opposite side of the street, where he sat down, and in twenty minutes' time was comatose. The druggist, who was absent when the acid was swallowed, was quickly summoned by the boy left in charge of the store, and he proceeded at once to inject into the man's stomach half a pint of olive oil, by means of a common rubber syringe and gum elastic catheter. I was summoned to attend, and arrived after the oil had been injected. I immediately injected, by the same means previously used, a solution of sulphate of zinc, which, however, did not produce emesis or any indications of such action. The breathing was rapid, probably forty times per minute, and spasmodic. Pulse beat rapidly and feebly at 160 per minute. Face much congested and livid. On examining the fauces I found they were much affected by the acid, as well as the mouth, presenting an appearance not unlike a diphtheritic sore throat. Coma profound. Not the slightest audible articulation. He rapidly grew worse. No signs of vomiting being likely to take place, I proceeded to reverse the syringe, as no stomach pump was at hand, so that I might be able to empty the stomach of its contents. However, it would be of no material benefit, as the injury had all been done long before I reached the patient. He expired before I had the apparatus adjusted, having lived only forty-five minutes after drinking the acid.

Remarks.—Had the druggist been at his post, or any equally qualified person to attend to the business, and administered a strong solution of saccharate of lime, and an emetic at the same time, the chances of a favourable result would have been much better. But, instead of this being the case, we find the druggist absent, and a boy, who knew nothing of the drug business, left in charge. No solution of saccharate of lime was prepared, and not procurable in time to save the man's life. All things considered, the druggist did well, I think, to inject the olive oil. The druggist, moreover, was reprehensible for leaving a strong solution of carbolic acid exposed in so accessible a place. As regards the immediate cause of death, I do not pretend to give a positive opinion.

Carbolic acid is well known to be a powerful

irritant when locally applied. The whiteness of the fauces was, no doubt, attributable to the coagulation of the albumen. There was no apparently marked stricture of the larynx from its caustic effect. Excessive cerebral congestion was very apparent, and probably death was produced by over-stimulation, combined with its toxic effect upon the nervous system.

For further references in regard to carbolic acid poisoning see *Medical Times* and *Gazette*, August, 1866, and *Chem. News*, September 7th, 1866.

SALICYLIC ACID IN RHEUMATIC FEVER.

BY W. F. SAVAGE, M.D., ELORA, ONT.

A. G., female, aged 16, had an attack of rheumatic fever eighteen months ago, which lasted three weeks. She has been well since and has grown a great deal; family history good. Her mother called on the 25th of April, wanting medicine for her daughter who was complaining of a little pain in some of her joints. I sent her a mixture of pot. bicarb, and vin. colchici. On the 29th I was called to see her; found both feet and knees swollen, red and painful; pulse, 90; temperature, 102°; no sweating. I increased the dose of alkali and gave a Dover's powder at night.

28th.—Breathing rapidly, 48 to the minute; great pain over the cardiac region; dyspnœa and great distress; pulse, 140, jerking and irregular; friction sound over the heart; temperature, 105°; hands affected; feet a little better. I applied a cantharidis blister over the left side and gave the following :—

℞—Acidi salicylici,	ʒ ij.
Ext. verat. vir., fl.,	m xx.
Aquæ ad.,	ʒ iv—M.

Sig.—Two teaspoonsful every three hours, and discontinue alkaline mixture.

29th.—Temperature, 104°; pulse, 120; less dyspnœa and pain; sweating profusely. Through a mistake of the attendant a tablespoonful of the mixture was given a few times, causing irritation of the stomach, vomiting, and nausea; less pain and swelling of joints.

30th.—Temperature, 103; pulse, 100; regular and quieter; can move both hands and one leg; breathing, 36 to the minute; slept for a few hours during the night; vomiting stopped.

May 1st.—Temperature, 102°; pulse, 80; inspirations, 30 per minute: dyspnœa almost gone; can move all the limbs. I decreased the dose of acid to four grains, and veratrum to one minim.

2nd.—Temperature, 101°; pulse, 68; pain all gone; no swelling; says she is well; appetite good.

4th.—Temperature, 100°; pulse, 70; rested well at night; no pain; can take a deep inspiration; to keep her bed for a few days; did not see her again, but heard she made a good convalesence.

Correspondence.

To the Editor of the Canada Lancet.

Sir,—I observed in your valuable journal for June 1st, a notice of the late action of the Michigan State Medical Society, in which is the same error that I have several times seen, and which it is very natural should be made, viz., that the proposed amendment consists in the addition of the last clause, commencing with the words, "or who has," etc. The *proposed amendment consisted of the entire paragraph*, and was as follows :—"That no person shall be admitted to membership who practices or professes to practice in accordance with any so-called party or sectarian school of medicine, or who has *recently* graduated from a medical school whose professors teach or assist in teaching those who *propose* to graduate in or practice *irregular* medicine." This proposed amendment was voted down, and no division of the question was asked for. A large number of respectable physicians are very much ashamed of the Society for such action.

I think it is also an error to say that the proposed amendment was "chiefly" intended "as an indirect censure upon the medical faculty of the Ann Arbor University for its relations with homœopathy." It was designed, as its language plainly set forth, to keep out from the State Society *recent* graduates from any such "mixed" college as was described in the proposed amendment, until by a year or two of practice the graduates had shown whether they were or were not regular practitioners of medicine, the Society having heretofore required upon all applications for admission endorsements by two members of the Society to the effect that the applicants were worthy practitioners of medicine.

The censure of the medical faculty of Ann Arbor had not been "indirect." In the American Medical Association charges had been preferred against the State Society because of allowing professors at Ann Arbor to represent the Society, and at the late meeting of the State Society charges were preferred against the professors, thus making the censure direct, though it seems to be the desire to have the question, whether the profession will sustain such mixed schools, settled by the American Medical Association.

Very respectfully,

HENRY B. BAKER.

Lansing, Mich., June 3, 1878.

Selected Articles.

TWO UNCOMMON FORMS OF DISLOCATION.

Mr. A. W. Mayo Robson lately reported in the *British Medical Journal* the following cases, one is a dislocation of the jaw during an attack of hysteria; the other is a dislocation of the sternal end of the clavicle upwards. The first is interesting on account of its cause; the second, on account of its rarity.

I was called to see a woman, aged 30, said to be in a fit. On arriving at the house, I found her in an hysterical attack, and ascertained that she had received news of a severe family trouble a few hours previously. A curious symptom in this case was, that she violently worked the jaw, and would persist in doing so despite being sharply spoken to and treated freely with cold water. Whilst I was observing her, the jaw suddenly became fixed widely open and displaced obliquely towards the right side. She instantly began to scream violently, and applied her hand to the injured part. I need scarcely say that the hysteria vanished, as if by magic. I replaced the jaw in the usual manner, and applied a four-tailed bandage. After being put to bed, she had a return of the paroxysms, and again worked the jaw; but this time the bandage prevented displacement. The next day, beyond a considerable degree of stiffness, nothing abnormal was found. I then ascertained that she had never had dislocation of the jaw, on any previous occasion. My reasons for recording the case is, that I find no mention made of any similar one either in Hamilton on "Fractures and Dislocations" or in Holmes's, Erichsen's, or Bryant's works on surgery.

The history of the second is as follows. I was called on September 27th, 1877, to see a grammar-school boy aged 15; the messenger telling me that he had put his shoulder out, having fallen undermost in a scrimmage at football. On arrival, I found him leaning towards the left side and supporting that arm with his right hand, any change of position giving great pain. On stripping the chest, the first sign that attracted my attention was a marked flattening of the left infraclavicular region. I then noticed a depression of the same shoulder; a very distinct prominence in front of the trachea just above the sternum; an absence of the natural projection of the left sterno-clavicular articulation, its place being taken by a depression in which could be felt the empty sternal socket. The tendon of the left sterno-mastoid was stretched tensely like the string of a bow, and the distance between the shoulder-tip and the middle line was an inch less on the affected side than on the sound one. There was no dyspnœa, and an entire absence of crepitus. My diagnosis was dislocation of the sternal end of the clavicle upwards, as the only accidents which might have simulated it were separation of the epiphysis and fracture; the latter being negatived by the absence of crepitus, and the former by the fact that ossification does not take place in the epiphysis till the eighteenth or twentieth year. Reduction was easily affected by drawing the shoulders backwards and raising the arm. I tied a handkerchief round each arm near the shoulder, and looped them together firmly behind; placed a pad in the axilla; pressed the elbow inwards by means of a bandage round the chest, enclosing the arm; and supported the elbow and forearm in a sling; after which the symmetrical appearance of the chest returned. In the after-treatment, there was a great tendency for the sternal end of the clavicle to slip upwards, as the boy, being unusually active, always contrived to romp about and loosen the bandages as soon as his attendant's back was turned. Although the appliances were continued for three weeks, and a figure-of-eight bandage for a fortnight longer, yet at the end of that time the sternal end of the clavicle remained about half an inch above its usual level; but the functions of the limb seemed to be in no way impaired. The only cases I can find on record of a similar nature are four quoted by Malgaigne, two by Bryant, one by Dr. Rochester of Buffalo, and one by Hamilton.

BONE FORMATION AFTER RESECTION OF THE LOWER JAW.

The following is by B. von Langenbeck, in the translation of the "German Society of Surgery," Sixth Congress.

GENTLEMEN: I am permitted to make this brief communication through the (as I may well say) exceedingly great attention which Prof. J. R. Wood, of New York, has shown, in sending this preparation here from New York by his assistant, Dr. Wiggin, in order to allow it to be demonstra-

ted. Dr. Wiggin must return again to-morrow to New York, and, although our allotted time is very brief, nevertheless I have deemed it necessary to present this demonstration, because otherwise our distinguished American colleague would have sent us this really grand work in vain.

Prof. Wood, Surgeon to Bellevue Hospital, in New York, had the kindness to send me the photograph of this skull last fall—a skull of which the entire under jaw has been extirpated on account of phosphorus-necrosis, and of which the whole lower jaw, has, in the course of a brief time, formed itself anew; and when, in my surgical lecture, I had showed and explained this photograph, *I did not believe that a corresponding preparation really existed anywhere*, he had the courtesy to send us this skull with the newly-formed lower jaw. I will quite briefly present the history of the operation, which is described in a short article by Dr. Wood in the "New York Journal of Medicine" for May, 1856, as the "Removal of the entire Lower Jaw, for Necrosis caused by Phosphoric-Acid Gas."

A girl—Cornelia S.—sixteen years of age, formerly always healthy, had worked in match-factories for two years and a half, one of which was very badly ventilated. She was occupied eight hours daily in packing matches, but enjoyed the best of health until May, 1 55. At that time there took place, along with toothache, a swelling of the lower jaw, with suppuration. The patient, however, continued her work up to December, 1855.

Upon her reception into Bellevue Hospital, total necrosis of the right, and partial of the left, lower jaw existed, with profuse suppuration. The pus poured for the greater part into the cavity of the mouth, and outward through a fistulous opening in the lower border of the mandibula. Notwithstanding this, her general health had remained good, and her appetite good, only chewing was very much impeded.

On the 19th of January, 1856, Dr. Wood made a resection of a part of the right lower half of the jaw, with most careful saving of the periosteum, and with preservation of the chin-portion of the lower jaw. Healing resulted without interruption, but it soon became evident that the entire remaining under jaw was diseased also, and this had likewise to be removed on the 16th of February, 28 days after the first operation. Excepting the retraction of the tongue ensuing upon the removal of the jaw, and the choking symptoms induced thereby, the good effect of the operation and the healing of the wound remained uninterrupted, and in March, 1856, the patient was able to be discharged, recovered.

The re-formation of the bone was *complete*, and the function of the new lower jaw left nothing further to be desired. In the photograph taken at this time, you observe the admirable contour of the lower jaw, of which the chin-portion only recedes slightly. Some years later, Cornelia S. died of abcess of the brain, and so Dr. Wood acquired the possession of this skull, which stands before you, and upon which you observe the entire lower jaw, with extremely complete form, only a very little smaller than the original must have been.

Formerly, cases of phosphorus-necrosis came into the clinic here not infrequently, and scarcely a term passed in which some jaw-resections were not performed. Thanks to the better ventilation in factories since 1864, scarcely any cases have come under observation, and it appears that phosphorus-necrosis will, at no very distant time be eliminated.

I have performed subperiosteal resection of the entire lower jaw six times—four times in consequence of phosphorus-necrosis, and twice in consequence of acute osteo-periostitis. In all these cases re-formation of new bones was observed, and, indeed, as in the case operated upon by Dr. Wood, with most complete restoration of the function.

When one extirpates the entire lower jaw from under the periosteum at one sitting, the chin must invariably recede. The room for the formation of the new lower jaw is restricted by muscles, namely, by the genio-glossi; the contour of the new lower jaw developes imperfectly, and the chin-portion of it retreats more or less perceptibly. In order to obviate this evil, I have, like Dr. Wood, made the operation at *two different times*, and at first cut out from the periosteum the smaller portion of the mandibula—which was, however, most diseased—leaving the chin and larger portion alone, and then, after four or six weeks, resected the remainder. But even then, as this photograph and the description given by Dr. Wood indicate, the lower jaw is always smaller, and the normal prominence of the chin is lacking.

This evil is almost completely avoided, if, as Billroth has recommended, one leave behind in position, osteophytes from the necrosed bone, in immediate contact with the periosteum. This photograph shows you such a case. I cut out first the smaller part of the necrosed jaw-bone, and, after new bone could be distinctly felt—six weeks later—I cut out the greater part, with the chin-portion. The resected jaw here shows you that osteophytes were left almost completely around. The photograph, which is taken half in profile (August Matthe's;) shows you that the contour of the lower jaw is very complete, and that the chin stands out in the normal manner.

The skull sent to us by Dr. Wood settles at once the question of the durability of the newly-formed bone. It has, indeed, been repeatedly maintained, that the newly-formed bone, after subperiosteal resection, cannot be of a durable kind, but that it subsequently must be reabsorbed. At all events, this may happen, and I have myself seen it in the case of a woman suffering from phosphorus-necro-

sis of the lower jaw, much reduced by long suppuration, whose lower jaw, newly formed after resection, was, after a twelvemonth, almost entirely reabsorbed. Such an absorption of bone is, however, a rare occurrence in my observation, and I can testify to the unchanged persistence after years of the new bone-formation, after subperiosteal extirpation, as well in the lower jaw as in long bones tibia, radius, os metacarpi pollicis.

Dr. Wood's patient died some years after the operation, and yet you see the new lower jaw preserved in all its parts, although a trifle smaller than was the original jaw.—*N. Y. Med. Jour.*

ON PUERPERAL FEVER, BY G. W. WOOD, M.D, FARIBAULT, MINN.

For upwards of two years I have used the medicine, or combination of medicinal plants, introduced to the notice of the profession by Dr. Kerr of Galt, Canada, in this Journal, 1865, 1867, and 1870; and afterwards by himself and others in numerous papers in the *Canada Lancet*, 1873, 1874, 1875, and 1876.[1] Adhering to the principle laid down by Dr. Kerr, that the medicine has a curative power over tenderness or ulceration of the mucous membrane, I have employed it in dysentery, diarrhœa, scarlatina, and measles. My experience has been chiefly in dysentery; from this disease every patient has recovered; and in many a severe illness it has helped me to save life, so that I have great cause to be satisfied. More recently, in consequence of a request from Dr. Kerr, who called my attention to a case in the *Canada Lancet*, by Dr. McDonald, Wingham, Ontario, I have given it in well-marked puerperal fever with the most gratifying results.

Case I.—Mrs. A., aged 28, mother of several children, delivered, after an easy and quick labour, by my partner, Dr. Rose, on the night of the 26th of May 1876. For several months previously she had been threatened with miscarriage. Dr. R. left her comfortable at 2 a.m., but, on calling during the day, found rigors frequent, small pulse, tympanitis, and all the symptoms of a severe attack of puerperal fever.

I visited her in consultation near midnight of the 28th. She was lying on her back, knees drawn up, abdomen very tympanitic, and exquisitely painful to the touch; slight delirium, peculiar anxious expression of the countenance; pulse small, thready, and very rapid; skin hot and dry; urine scanty and high coloured; lochia had not entirely stopped; no diarrhœa. She had taken opium freely by the mouth and also hypodermically; but notwithstanding, the disease had rapidly increased in severity. We were both of opinion that, unless a favourable change occurred very soon, the patient had not long to live. We resolved to give six and a half grains of the digitalis combination, without opium, every four hours, with an occasional hypodermic injection of morphia as the case might require. In twelve hours the symptoms were considerably improved, recovery dating from the first dose; indeed, the benefit resulting from each, could be plainly seen. The recovery was so rapid that by the 31st of May she was entirely out of danger, and on the 5th of June we ceased to attend. After the digitalis combination was commenced, only two hypodermic injections were given.

Case II.—Mrs J., delivered in the country of her first child on August 5th. On the 12th was doing well, and moved into this city, a distance of twenty-three miles. On the 14th was seized with a severe chill, great pain, tympanitis, &c. Dr. R. was sent for, who gave opium and quinine very freely, but she continued to get worse. I was called at 4 a.m., August 17th, and found all the symptoms of a severe attack of puerperal fever. She had intense pain in the abdomen; tympanitis was not so excessive as in last case, but she had profuse diarrhœa unchecked by the doses of opium and quinine. We gave her six and a half grains of the digitalis combination without opium every four hours. In twelve hours, pain had nearly ceased, and in twelve more, diarrhœa having terminated, she was out of danger. By the 21st she was greatly better. The recovery was so rapid that seven visits comprised my attendance. From the hour I first saw her, no opium was given, but the digitalis combination was continued for some time in the same doses as at first.

Case III.—Mrs R., aged 30, had early in pregnancy such severe and persistent vomiting that it induced uterine contractions and a tendency to miscarriage, with occasional floodings, which occurred throughout her entire pregnancy. She was so reduced in strength as to be obliged to keep her bed more than three-fourths of the time. These unpleasant symptoms were only controlled by morphia given hypodermically. She was delivered at 6 a.m., on 5th December, after an extremely severe labour lasting twelve hours; during six of these, she was under chloroform. The child (her first), which weighed nine and a half pounds, had a large and unusually firmly-united head. Thirty-six hours after delivery a very severe chill ushered in puerperal fever. She had intense pain, increased by the slightest pressure, tympanitis, bad facial expression, cold sweats, slight delirium, and all the symptoms mentioned in Case I., diarrhœa being likewise absent. We decided to give six and a half grains of the digitalis combination without opium

1 The components are dulcamara, stramonium, sium lineare, cicuta maculata, conio-solinum Canadense, and either digitalis or squills; the former being styled the Digitalis, the latter the Squill Combination. Experience having shown that these are not suited to some exceptional cases, Dr. Kerr has introduced a third combination (*Canada Lancet*, July 1874), styled the Strychnine.

every four hours. In twelve hours she began to improve; in four days was thoroughly convalescent, and made a good and rapid recovery. Prior to the administration of the digitalis combination, morphia was freely given hypodermically, the unfavourable symptoms, apparently unretarded, all the while developing rapidly, and leaving no room to doubt that a fatal termination was fast approaching. After thirty-six hours' use of the powders she was so much better that the nurse omitted to give them—an error which in twelve hours brought on an aggravation of symptoms, but recurrence to the medicine soon checked this, and recovery again went on.

CASE IV.—Mrs D., mother of several children, residing in the country, about ten miles from where the other cases occurred, was delivered by a midwife on the 15th November, and on the 18th was seized with a chill, followed by well-marked symptoms of puerperal fever, accompanied by colliquative diarrhœa. My first visit was at 10 p.m., of the 23rd. By this time, however, there was no pulse at the wrist, collapse having occurred. She was given the digitalis combination, with opium and brandy, freely, but died in eight hours. I learned that the symptoms were very similar to those of the preceding patients. As will be perceived from the dates, all the cases were sporadic. The three who recovered began to sleep within twelve hours from the commencement of the use of the digitalis combination, and sleep became natural and sound in twelve to twenty-four hours more.

I have noted the hypnotic effects of the medicine in children, especially in dysentery and scarlatina, and also in sleepless crying babies. I may add that after-pains are far more speedily relieved and cured by the digitalis combination with opium than by opium alone. Might not this medicine be tried in hydrophobia with a reasonable prospect of success, at least if this disease has its chief seat in an inflamed or ulcerated mucous membrane?—*Edin. Med. Journal.*

UNORGANIZED FERMENTS.

This is a term (Dr. Gamjee, in the *British Medical Journal*), applied to such ferments as those which occur in the animal body to distinguish them from certain elementary organisms, which, possessing the power of setting up certain decompositions in bodies with which they are in contact, are termed *organized ferments*. Unorganized ferments are chiefly distinguished from organized: 1. By the fact that they may be dissolved in certain menstrua without any impairment of their ferment action; thus ferments of the animal body are soluble in glycerine and in water. 2. By the fact that their action is not prevented by many agents, such as chloroform and salicylic acid, which at once arrest the action of organized ferments. Examples of unorganized ferments:

(1) Ptyalin in saliva.
(2) Pepsin in gastric juice.
(3) Pancreatic juice—three ferments.
(*a*) Proteolytic, capable of coverting albumen into albumenose.
(*b*) Amylolytic, capable of converting starch into sugar.
(*c*) One capable of decomposing fats into fatty acids and glycerine.

Although pepsin transforms albumen into albumenose, the action of pancreatin is more profound. Thus Kuhne has shown that when albumen is dissolved by pancreatic juice, not only is albumenose formed, but also leucine and tyrosine. The former of these bodies is closely related to the fatty acids, and the latter to the group of aromatic bodies.

To these facts, already old in science, there have been made some important additions. First Heidenhain has shown us that in the pancreas, as also in the salivary glands and stomach, there are structural differences to be observed which correspond to the various states of functional activity of these organs. During rest the secretory cells of the pancreas enlarge, and there accumulates within them granular matter, which disappears when the gland enters into activity and the gland cell shrinks. Further, the secretory cell of the prancreas at the time of secretion does not contain ready formed ferment, but a body which under suitable circumstances yields the ferment, and which he terms ferment generator or *zymogen*. Heidenhain has shown that the *zymogen* yields the ferment when it is present in a watery solution, more rapidly still when it is treated with weak acids. His careful studies of the conditions of the activity of the fully formed ferment, show that alkalies are as essential to its activity as are acids to the activity of pepsin, a watery solution of sodium carbonate of one per cent being as favorable to the activity of the proteolytic ferment of the pancreatic juice, as is a watery solution of hydrochloric acid containing two-tenths per cent to that of the proteolytic ferment of the gastric juice.

Kuhne has made important additions to these discoveries. To the proteolytic ferment of the pancreatic juice Kuhne applies the name of *trypsin* (to break up). Trypsin differs from pespsin in that it appears to be proteid in nature. Its activity is increased by alkalies and alkaline fluids such as bile, but is prevented by acid fluids. Trypsin has no power of digesting pepsin, but pepsin in acid solution has the power of destroying trypsin. Remembering this, we see an important function of bile. It helps to neutralize the acid chyme and brings peptic digestion proper to a close, and in this way induces the condition most favorable to pancreatic digestion.

The researches of Thiry and others have shown

that the secretion of the intestinal canal contains: 1. A ferment capable of dissolving certain of the proteids as boiled fibrin. 2. One which possesses in a singularly high degree the power of converting cane and milk sugar into grape sugar. Claude Bernard has lately reinvestigated this ferment and finds that it can be dissolved and precipitated by the reagents which dissolve and precipitate the other unorganized ferments of the body. To it he gives the name of *inverting ferment.—Detroit Lancet.*

CHLORATE OF POTASH IN CATARRH OF THE BLADDER.

Prof. G. Edlefsen, of Kiel, publishes in the *Deutsch. Archiv. Klin. Med.*, xix., 1,1877, an essay on the treatment of catarrh of the bladder by chlorate of potash. The view lately advanced that the best method of treating cystitis, even acute cases of it, consists in the introduction into the bladder, through the urethra, of water or medicated fluids, is not in accordance with his observation, The remedy he recommends is chlorate of potash. which never damages the stomach or any other organ, and substitutes turpentine perfectly in cases where turpentine cannot be given.

That the chloric acid salts, when administered internally, pass into the urine, was demonstrated in 1856 by Lambert. The value of the chlorate of potash in affections of the mouth and pharynx leads the author to their administration in affections of the bladder, the epithelium being in both cases alike of the pavement variety. The action of this remedy seems confined to this variety, as it has no effect upon the trachea or bronchial tubes. Its action is not to be explained by simple contraction of the muscular coat of the vessels, as it not only reduces the hyperæmia and catarrh, but also closes ulcers over quickly as if it exercised a specific action in the reproduction of epithelium. The author's results were extraordinary, still there are cases in which he failed with it, and was compelled to resort to turpentine and copaiba. He orders for adults usually: Potass., chlorat. 15.0, aqua dist., 300·0, of which a tablespoonful every two or three hours. He lays stress upon the prescription because it is necessary to bring the patient under the influence of the remedy quickly. Should the taste of the drug after long administration become insipid or sickening, it may be corrected by using cherry laurel as a vehicle (10·0—300·0); any syrup should be avoided. The pus begins to disappear from the urine after its use very quickly—an important difference from the action of salicylic acid —and the subjective distress is lessened or disappears even before the pus has entirely vanished.—*The Doctor.*

FATAL HEMORRHAGIC SMALL-POX.

BY L. D. BULKLEY, A.M., M.D., NEW YORK.

Two years ago I reported a case of unrecognized, fatal hemorrhagic small-pox in the mother, and fatal small-pox in the new-born child, and within a year later I was called in consultation by another physician to see a similar case, which had been previously seen by one physician of New York of some eminence without recognizing its nature. This case was also followed by a case of ordinary small-pox in the person of the husband, who recovered. From these cases having passed unrecognized by several physicians, I deem that the existence of this rather rare form of the disease is not a well-established fact in the minds of all practitioners, and therefore think the subject worth presenting again by means of this second fatal case. This appears to be the more necessary because there is no good description of these peculiar features in the text-books on general medicine or dermatology.

Mrs. E., aged 39, a good-sized and previously healthy lady, five days previous to my seeing her, was seized with a chill, which was not very severe, followed by nausea and vomiting, with some fever. Two days after the chill she began to get flushed in the face, the flushes being of a purplish and rather livid hue, and on the third day some ecchymotic spots appeared on the neck and chest. During this period there was some pain in the back, but this was not severe, and the nausea and vomiting had yielded soon to bismuth. During these first few days there was no sign of a papular eruption, nor at any time was there an amount of any lesion which would be considered as distinctive of small-pox. Hemorrhages began from the mouth on the third day, and soon extended to other localities, persisting until death.

When I saw her, April 24, 1877, the face presented an evenly distributed, purplish, livid hue, with few if any blotches, but scattered over the purple surface, a few minute papules could be discovered on close examination. The neck and chest were covered with a thickly set eruption of petechiæ, confluent in some places; on the abdomen, where a mustard-plaster had previously been placed, there was an evenly formed ecchymotic surface; the back was pretty well covered with petechiæ. On the thighs the hemorrhagic spots were separate and distinct, of an irregularly roundish shape; they were more thickly set upon the buttocks. The legs were more sparsely sprinkled with them, they reaching even on to the toes. The arms were affected in like manner, the eruption of hemorrhagic maculæ of various sizes and shapes extending on to the hands, and even to the fingers, mainly on their backs.

On many of the petechiæ very close inspection

with a pocket lens of moderate power, showed minute pustules, although but a comparatively small number of the hemorrhagic spots exhibited them. On the roof of the mouth there were several fairly developed pustules with ruptured summits.

The eyes were intensely ecchymotic, the tissues of the right eye were raised up in a circular ring around the iris, which appeared as a great depression in the centre; the left eye was less affected than the right, but was the seat of considerable bloody effusion.

The mouth and nose were pouring forth blood, blood was passed by the bowels, there being also considerable pain through the abdomen, and the urine was seen to be loaded with blood in streaks and clots.

The pulse was 120, full and throbbing, temperature, 105°; tongue dry and parched; the bowels had been previously moved by ten grains of blue-mass, and she was having loose, bloody stools.

She was conscious, answering questions clearly, and assisted somewhat in the examination, which was very brief, but she complained much of great general distress. She was bled to about twenty ounces, the blood flowing with some difficulty and being of a very dark color. Twenty-five minims of fluid extract of ergot were injected hypodermically into the arm, and this was directed to be repeated every two or three hours. Brandy was to be administered tolerably freely, and to be given by hypodermic injection if vomited.

The patient expressed herself as experiencing the very greatest relief from the bleeding; the pulse became more natural, and she slept. I have not received from the attending physician the promised details of the case after I left her, and only learned that she sank and died within twelve hours after my visit. The family were ordered to be vaccinated at once, but the husband took the disease, as before stated, and was severely affected; I believe all the others escaped.

The interesting points attached to the case are: the peculiar variety of the disease, the small-pox poison manifesting itself almost entirely in the form of the hemorrhages, and the consequent difficulty of the diagnosis; the almost surely fatal nature of this variety of variola; and the necessity of a correct diagnosis for the sake of those around the patient.

In regard to the diagnosis, I need only say that the entire group of symptoms as detailed in this case can be presented with no other disease; purpura hemorrhagica which it most resembles, would not have the initial chill, nor the fever and throbbing pulse of 120, nor the papules on some ecchymoses and the vesicles or pustules on the others. Black measles, or black scarlet fever, the hemorrhagic varieties of these diseases would also never give the pustular element, moreover would not be so rapid in progress or so violent in character: and would possess other features charactertistic of each, as the catarrhal symptoms of measles and the throat disease of scarlatina.

As to the treatment, little if anything has ever availed; the cases are almost surely fatal, and that generally within from three to five days. It was my painful duty to tell the husband that his wife could hardly, by any possibility, live. The treatment followed was such as I should be inclined to again advise, except that it should be resorted to much earlier in the disease. The bleeding was indicated, inasmuch as the throbbing pulse was already seeking relief by hemorrhages from the mouth, nose, kidneys, and bowels, and by thus opening a vein an impression was made on the circulation, and the patient was certainly very much relieved. I should hope most from the hypodermic injection of ergot, which was immediately given; but the disease had progressed too far, and it was possibly not absorbed. In an earlier case I should expect something from it. Too much care can hardly be exercised in recognizing cases of this terrible form of small-pox, as, if undetected, they may give rise to very serious consequences, as in this and the other instance which I have previously reported.—*Medical Record.*

NEW YORK ACADEMY OF MEDICINE.

FALLOPIAN PREGNANCY.

Dr. Laurence Johnson reported *(New York Academy of Medicine)* a case of Fallopian pregnancy occurring in a woman æt. 29 years, married, and the mother of two children aged respectively four and a half and two and a half years. She had always been healthy. Her last menstruation commenced on the 11th of February, 1878, and continued the usual length of time—three or four days. There was no evidence of pregnancy except the non-appearance of the menses on March 11th. On March 23rd, at about noon, she suddenly began to suffer from pain referable to the pelvic region, became faint, and was put to bed. Small quantities of brandy were given at intervals, and she partially regained her strength, but in the evening there was a return of the faintness. She vomited once or twice, and had an evacuation from the bowels. The doctor saw her for the first time soon after the attack of fainting in the evening; found her very pale, with a feeble pulse, 140, but there was no discharge of blood from the vagina.

March 24th.—Patient appeared somewhat brighter; pulse somewhat stronger, but rapid. Urination without pain; abdomen somewhat tympanitic; tenderness all around the uterus, but especially upon the right side. Pain was not a promi-

nent symptom at any time during the entire history of the case, although at no time was she markedly under the influence of narcotics.

March 25th.—Patient sank rapidly, and was thought to be dying. She rallied, however, so that on March 26th she was comparatively bright. On the night of the 26th she sank and died, *four days* from her first attack of faintness.

Autopsy, twenty-four hours after death.—Pelvic cavity filled with blood. Ruptured cyst in the right Fallopian tube, close to the uterus, and probably not larger than a hickory nut. Right ovary contained a recent corpus luteum. Uterine decidua very apparent. Little or no evidence of peritonitis.

Dr. Johnson raised the following important question:—*Would not an operation, with the view of securing blood-vessels, have been feasible and justifiable immediately after the occurrence of the first hemorrhage on the 23rd of March?*

METHOD OF TREATMENT SUGGESTED BY DR. EMMET.

Dr. T. Addis Emmet, in the light of a case reported by Dr. McBurney, and which was seen in consultation by Dr. Thomas and himself, believed it to be a feasible operation, as soon as the Fallopian pregnancy was recognized, to first dilate the uterus, then dilate the tube, and in that manner remove the fœtus. Dilatation of the uterus took place when only a moderate quantity of fluid was enclosed in its cavity, and at the same time the fluid backed into the Fallopian, tubes. He, therefore, was perfectly satisfied that with proper instruments, the uterus could be safely dilated, and also the Fallopian tube, and, as the cyst was usually near the body of the uterus, its contents could readily escape into the cavity of the uterus when such dilatation was effected. Dr. Emmet then exhibited an India rubber cot, such as he had been in the habit of using during the last ten years for the purpose of dilating the uterus. The dilator was manufactured by Shepard & Dudley, and consisted of an India rubber cot containing a tube into which a sound could be introduced, so that it could be carried to the fundus of the uterus; an additional fixture permitted the attachment of a Davidson syringe, by means of which the cot could be distended to any degree required. When the uterus had been dilated, a curved sound could be used, and the cot introduced into the Fallopian tube, and the dilatation produced as in the former instance.

FEASIBILITY OF A SURGICAL OPERATION.

Dr. Emmet was of the opinion that as soon as rupture of the cyst occurred it was a proper operation to immediately open the abdomen and secure the bleeding vessels; for in comparison with such operations as ovariotomy, opening the abdomen for that purpose was a simple affair.

Dr. Post referred to a case reported to the International Medical Congress by Dr. ——, of Georgia, in which laparotomy was performed for that purpose, and with good results.

Dr. Sell approved of the operation.—*Medical Record.*

A NEW FUNCTION OF THE LIVER.

Prof. Schiff and Dr. Lauterbach bring to general knowledge, a new function of the liver, and the 283 experiments which are made the basis of the work, were carried out by the latter in the laboratory of the former, under his direction. It is known that ligation of the portal vein in an animal, produces a condition similar to that caused by morphine; sensitiveness to touch, diminished sense of pain, retarded pulse, pressure of blood in the arterial system, first increased, then diminished, slow stertorous respiration, and the animal dies without convulsions. Dogs hold out about four hours, cats and puppies succumb sooner. A new hypothesis is presented in the work before use, in explanation of this phenomenon. Many animals produce in their organism a powerful poison, under normal conditions, which is eliminated by special glands; in others, as in dogs and cats, a poison is formed under pathological conditions, such as hydrophobia. It is possible that a poison is formed in the organism of all animals, and that they would sometimes perish by self-infection if they were not provided with an organ in which this poison is destroyed. The organ to which this function belongs is the liver, and the symptoms which result from ligation of the portal vein have their origin in a collection of the toxic products in the blood. Thirty-four frogs were injected with the blood of a dog which died after ligature; all of them presented symptoms similar to those of the dog, and died after three hours. In order to prove whether the liver, which destroys the toxic principle in the organism, exercises the same influence on other poisons, Lauterbach made the following experiments: he ascertained the dose of nicotin which was sufficient to kill a large dog if injected into the general circulation; the same dose injected into the small intestines and mesenteric veins of other dogs produced only feeble symptoms of poison, which quickly disappeared; a double dose is not sufficient to kill a dog when the poison passes through the liver before it goes into the general circulation; an injection, five times diluted, killed a dog whose portal vein was tied. A further series of experiments showed that the direct contact of the liver-substance with the nicotin, was sufficient to deprive the latter of its poisonous qualities. If the liver of a puppy is injected with 10 cc. of water and a triple dose of nicotin, and the fluid obtained is injected into the subcutaneous cellular tissue of

a dog, only a few symptoms of poison are observed, and the animal quickly recovers, but if the maceration is made with another organ, *e. g.*, the kidney, all the symptoms of poison are seen, quickly followed by death.—*Gaz. Med. de Paris*, 51. 1877.

TO CONVERT A WARM INTO A COLD-BLOODED ANIMAL.

Claude Bernard made the handsome discovery in 1855 that warm could be made cold-blooded animals at will, so that their muscles, nerves, etc., would remain alive a long time by cutting through the spinal cord at definite places or by withdrawing from them oxygen, *i. e.*, by putting them under a bell-glass jar and allowing them to remain nearly to suffocation. Schiff in 1869, took up these investigations and extended them by alcoholising animals, varnishing them, poisoning them with curara and conium in connection with artificial respiration accomplished the same effect as Bernard, but like him, not describing the conditions of the operation nor giving details as to the experiments. These details have now been furnished by Dr. Oscar Israel in a paper on Artifical Pœkilothermia relating his experiments on rabbits, the only animals he examined. A very good method of operating is that of Claude Bernard, viz., section of the spinal cord between the fifth and sixth cervical vertebræ. To obtain the desired effect completely, the section must be made neither higher nor lower than this point. The first effect of the operation is, as Claude Bernard has already shown, sharp excitement, with great increase of the pulse and respiration, but in from five to ten minutes a reduction commences which soon brings the pulse, the respiration and the temperature down to normal grades. The reduction of the temperature stands in direct relation to the length of time employed in the operation.

The alcoholisation of animals to effect reduction in temperature acts with uncertainty, according to Schiff. Sometimes the animal only becomes drunk, again it perishes too soon with symptoms of toxic convulsions. It is best to first inject 10 to 20 ccm. of a 20 per cent. solution of alcohol absolutus in distilled water into the peritoneal sac and to follow it up with smaller doses, 6 to 12 ccm., subcutaneously whenever the temperature rises to the normal grade. Mostly more than 100 ccm. must be thus injected, but with this quantity a uniform low temperature is secured. Irrigation of the peritoneum with a trocar having numerous fine openings and a drainage tube to carry the fluid off (Wagner's method) is also very effective. The temperature may be very thoroughly regulated in this way so that in ten or less minutes it may be depressed one or several tenths of a degree. The reduction, by whatever method, must not be too little (not above 30° C.), as else the maximum survival of the tissue is lost, or too great (not below 21° C.), else the animal may die. But the maximum survival of tissue is reached at 21° C. The sinking of the temperature must also not take place too rapidly, as in two hours; or must not go too slow, as in 81 hours. The longest exhibition of life is attained if the temperature be reduced to about 20° in 6 to 10 hours. The excitability of the nerves remains then 3 to 3½ hours, of muscle 6 to 8 hours after the death of the animal. The heart reacts also several hours after death and contracts of itself, if kept full of blood from one to two hours. The muscles may then be tetanised from the nerves (as in cold-blooded animals). The loss of excitability after death now takes place slowly, not suddenly, as in warm-blooded animals.

The explanation which Israel gives for the phenomenon of artificial pœkilothermia is that the cooling in warm-blooded animals effects an insufficient oxidation of the tissues.—*Arch. f. Anat. u. Physiologie*, 1877.

PROLONGED RECTAL ALIMENTATION.

There were certain points of interest worthy of note in the case of a married female patient, æt. 20, who entered the hospital on the 5th of January, 1877. Her family history was good, and there was no evidence of syphilis or intemperance. Through life she had had poor shelter, little food, and much abuse. During her first pregnancy an abortion occurred; had not carried a child to full term; had three abortions in all, the last being the second application. In the third and fourth cases one application was sufficient, although the fourth case was one of the most harassing and persistent cases that ever came under his care. The stomach rejected everything taken into it, and the patient grew feeble, and became so emaciated that she was scarcely able to leave her bed. The caustic was in this case applied very freely to the os and vaginal cervix. In all of his cases all the usual remedies had been faithfully tried before the caustic was resorted to.

Dr. Sims adds notes of a case occurring in his practice, in which this treatment was marvellously successful. His first application of the caustic in solution of two drachms to the ounce was followed by great improvement. At the end of five or six days there was some nausea, which was, however, not distressing. The pencilling of the neck of the womb with pure carbolic acid until it was completely enveloped in a whitish film, relieved the nausea, and the day following she was perfectly well.—*Michigan Medical News.*

MIGRATION OF WHITE CORPUSCLES IN MAN.—Prof. Collin, of the Vale de Grace (*Le Progrès Médical*) gives the result of his studies on the

migration of leucocytes in man, showing that clinical observations and pathology confirm in this respect experimental physiology. It has been known for some years that, when a fine-coloured powder like carmine is injected into the vascular system of an animal, the white corpuscles seize on the small granules, envelope them, and carry them through the vessels. They can readily be followed through the circulation, and it is easy to show their passage through the walls of the vessels, and their extravasation into the cellular tissue. In malarial fever and the resulting melanæmia, pigmented deposits are found in different tissues, particularly in those most in contact with the blood, such as the vascular walls. These deposits are derived first of all from the red blood corpuscles, which are destroyed in the spleen. The white corpuscles take up the dèbris of the red ones, and form with this the pigmented masses found in the walls of the vessels and different tissues. This migration is very active. In countries where malaria is common the yellowish earthy tint which is due to general pigmentation of the tissues, and consecutive to a migration of the white globules filled with pigment, sometimes appear after only two or three attacks of fever.—*The Doctor.*

BRITISH DEGREES AND COLONIAL PRETENSIONS.

Just now, when we are very properly arranging to give privileges of practice in Great Britain to colonial graduates, may be the proper time to secure the like privileges for our own graduates, who in some colonies suffer from the application of a strictly protectionist system by indigenous examining boards. The *Canada Lancet* points out:

"If, however, we ask for our graduates the privileges enjoyed in England by home-graduates, we must at least be prepared to concede something in return. It seems that there is amongst our Ontario Medical Council a feeling of jealousy that makes them resent a man's going over to Great Britain and obtaining his qualifications there rather than here. It is looked on as a slight to the College, and as an attempt to set it at defiance, and is punished by a refusal to register his British qualifications without further examination here, on the ostensible ground that these qualifications are conferred by irresponsible close corporations, instead of, as here, by a body chosen by the profession and responsible to it for the proper performance of its duties."

The assumption of superiority which covers the special pretension of the Ontario Medical Council is not a little amusing; nor is it altogether uninstructive to note how the exaggerated talk which is sometimes heard anent "irresponsible close corporations" is taken *au grand sérieux* by our colonial offspring, who delight to flout their grandmother with her supposed shortcomings, on however slender evidence. The fact is, that there is no such thing in the three kingdoms as an "irresponsible close corporation" of medicine, so far as we are aware; no one which is not responsible to its own Fellows, to the General Medical Council, and to Government. But, in any case, the joke of a Canadian board turning up its nose at English diplomas, and refusing to admit them to registration, is too funny to be serious, and too nearly serious to be treated as altogether humorous. We are surprised that this "want of reciprocity" was not mentioned lately at the Medical Council, when the subject of colonial degrees was being discussed. —*British Med. Journal.*

DIRECT METHOD OF ARTIFICAL RESPIRATION FOR THE TREATMENT OF APNŒA FROM DROWNING, ANÆSTHETICS, STILL-BIRTH, ETC.

BY BENJ. HOWARD, A.M., M.D., M.R.C.S. ENG.

RULE I.—*For Ejection and Drainage of Fluids, &c., from the Stomach and Lungs.*

Position and action of Operator.—Place the left hand well spread upon base of thorax to left of spine, the right hand upon the spine a little below the left, and over lower part of stomach. Throw upon them with a forward motion all the weight and force the age and sex of patient will justify, ending this pressure of two or three seconds with a sharp push, which helps to jerk you back to the upright position. Repeat this two or three times, according to period of submersion and other indications.

RULE II.—*To perform Artificial Respiration.*

Position of Patient.—Face upwards; the hard roll of clothing beneath thorax, with shoulders slightly declining over it. Head and neck bent back to the utmost. Hands on top of head. (One twist of handkerchief around the crossed wrists will keep them there.) Rip or strip clothing from waist and neck.

Position of Operator.—Kneel astride patient's hips; place your hands upon his chest, so that the ball of each thumb and little finger rests upon the inner margin of the free border of the costal cartilages, the tip of each thumb near or upon the xiphoid cartilage, the fingers fitting into the corresponding intercostal spaces. Fix your elbows firmly, making them one with your sides and hips; then—

Action of Operator.—Pressing upwards and inwards towards the diaphragm, use your knees as a pivot, and throw your weight slowly forward two or

three seconds until your face almost touches that of the patient, ending with a sharp push which helps to jerk you back to your erect kneeling position. Rest three seconds; then repeat this bellows-blowing movement as before, continuing it at the rate of seven to ten times a minute; taking the utmost care, on the occurrence of a natural gasp, gently to aid and deepen it into a longer breath, until respiration becomes natural. When practicable, have the tongue held firmly out of one corner of the mouth with thumb and finger armed with dry cotton-rag.

APPLICATION OF THE DIRECT METHOD TO CASES OF STILL-BIRTH.

The child lies along the left hand of the operator, the ball of whose thumb takes the place of the hard roll of clothing. Over this the shoulders decline, the head falling back with arms, if convenient, on either side of the face. The buttocks and thighs are supported by the operator's fingers. Thus, the operator has the prominent little thorax completely within the grasp of his right hand, with firm counter-pressure behind, enabling him to apply, locate, distribute, direct, and alternate his pressure as he pleases.

Case which first suggested this application of the Direct Method, other methods being, under the circumstances, inapplicable.—I was called to apply the forceps in a primiparous labour, which had already lasted nearly three days. It was a seven months' child, and, as I had apprehended, it presented when delivered no present sign whatever of life, and from its colour no future prospect of it. Cold air, spanking, hot and cold water, &c., naturally proved useless. Division of the cord, I was sure, would be final to any lingering possibility of hope. Tethered between the thighs of the mother, the methods of Marshall Hall and of Silvester were alike impracticable. Holding the child in my left hand, I proceeded, however, with the Direct Method, as described above, stopping now and then, and making, quite unaided, mouth-to-mouth insufflation. In about twenty minutes the child commenced to breathe, and she is now one of the most vigorous girls I know. During the entire procedure, with the exception of the head and shoulders, there was no exposure either of the mother or child.

THE ORIGIN OF THIS METHOD.

Notwithstanding more or less of the experiences just narrated, in my lectures in the University of New York, as also at the Long Island College Hospital, I allowed myself to teach only the authorized methods of Marshall Hall and of Silvester. An event, however, occurred which unexpectedly compelled me to consider the entire question from a new standpoint. From a report I had prepared, it appeared that, of the (I think) 244 deaths from drowning during the previous year within the metropolitan district of New York, not one appeared to have been reached by a medical man in time for an attempt at resuscitation.

Under the auspices of the New York Board of Health, I endeavoured to solve the problem whether it was not possible for the harbour police, who more generally rescue these unfortunates, to be made competent also to do something for their resuscitation. Ordered to headquarters in squads for the purpose, I took for my guide the published Instructions of the Royal Humane Society and of the National Lifeboat Institution of England, and endeavoured to teach them to these men accordingly. To make these methods understood I certainly tried most earnestly and faithfully, but as certainly did I most signally fail. These men had but little notion of gravitation, less of respiratory muscles, and the relation between the motions taught them in either of these methods and the motions they could see in simple natural breathing they somehow always failed to comprehend. They learned, therefore, accurately, little or nothing of either method, and in the excitement of a subsequent emergency their notions and motions were more confused than ever. My only inclination was to abandon the whole matter. The responsibility, however, was a serious one, and I accordingly undertook to see how far the methods in question conld be stripped of superfluous motions; how the essential feature of alternate thoracic compression and expansion, common to both and all methods, could be presented in the nakedest simplest form. The result was that, instead of throwing the men a nut to break their teeth upon, I was afterwards able to give them simply the kernel; this kernel was the Direct Method. This name I gave it at once, because, in contradistinction to the indirect ways of the other methods, by these rules the two or three things to be done are simply done—done as they would be in any other matter of daily life. The tongue is to be brought forward; it is pulled forward. The chest is to be pressed,—it is pressed;—and that without waste of time, strength, or motion. The result of the change was to all concerned very gratifying. The first day I ventured to teach the Direct Method, Rule I., was made to explain itself in a way I did not intend, the volunteer subject having but just had his dinner.

In explaining Rule II., having put a comrade patient in position, with black ink I described by continuous outline the lips, trachea, apex and conical contour of the bony walls of the air-chest, and with red ink marked the line of the diaphragm at its base. Besides this amateur patient I placed an old-fashioned pair of kitchen bellows kept widely open by a spiral spring at its base. I need hardly say the nozzle, windpipe, hard conical sides, pliant leather base, presented sufficient similarity,

to the ink outlines I had made on the patient to be quite amusing. But in illustrating simultaneously the action of the operator, both upon the one and upon the other, side by side, the manifest compression, rebound, and audible gasp, presented an analogy so complete, all I had to say about the steady increase of pressure ending with a short push, about the rhythm, the persistence, the gentleness to be employed, as in reviving a dying ember, was entirely anticipated, and each man I found on the first lesson to be as competent as he was impatient to "blow the belluss," as he called it, of his comrade. The lectures were henceforth anticipated by the men as much as for the entertainment as for the instruction. It so happened the next morning one of this first squad fished out an unfortunate man who had sought relief by drowning near Catherine Ferry; and though for twenty minutes after rescue he gave no sign of life, this policeman succeeded in establishing respiration, and within two hours the man was able to return to his lodgings.—*The Lancet.*

ELECTROLYSIS OF SCROFULOUS LYMPHATIC GLANDS.

Mr. Golding Bird has contributed a paper on the treatment of scrofulous lymphatic glands, by the electrolytic caustic. He referred to the growing disuse of caustic. He divided cases of scrofulous glands into three classes: 1. The glands free, though enlarged. 2. The glands matted together, or to the skin, or presenting hardened nodules, or encapsuled (lymphoma). 3. The condition of active inflammation. The first-class was met by general treatment. In the second it was better to use the knife. In the third the best operation was by caustic; and the least painful of any mode of applying it, was the one now described. A small arrow of sheet zinc, one inch and a half long by half an inch wide, sharp at one end, had a copper wire ten inches long attached to the other. The other end of the wire was soldered to a plate of thin sheet silver or copper, three or four inches square: The latter was firmly strapped upon a piece of lint, wet with salt and water, on to the skin somewhere near the spot to be destroyed. Over it was placed some oiled silk or waterproof strapping. The zinc point was then thrust through the fungating mass to be destroyed; a small shield of gutta-percha, or cork, regulated the zinc point. Some cotton-wool and a bandage were placed over all. The gland was gradually disintegrated by the formation of chloride of zinc at the expense of the metal inserted, and came away in four to six days. When all the gland had come away, the wound rapidly closed, with very little scar. The lint must be wetted with salt and water, night and morning. Mr. Spencer Wells was employing this method for the removal of uterine cancer. He referred to two cases, in which, though the results were very satisfactory, much pain was complained of. In the latter, the total weight of slough was four hundred and thirty-three grains. He narrated the history of one case in which he applied the zinc in the form of a flat disc to necrosed bone with good result.—*British Medical Journal.*

AGENCY OF WHITE CORPUSCLES IN THE COAGULATION OF THE BLOOD.—Professor Schmidt has shown us that there is no fibrine in the circulating blood, and that the fibrine of the clot is represented by the fibrinoplastin and fibrinogen of the liquor sanguinis. Later it appeared that, in order that these factors should unite, it was necessary that a third substance should be present. This third substance has been traced to the white blood corpuscles; but in order that it may act in producing fibrine it must be set free by the disintegration of these corpuscles.

What are the reasons for believing that the white blood corpuscles contain the ferment necessary to coagulation of blood? These are well stated by Dr. Burden Sanderson in the *British Medical Journal*, January 12th, 1878. First, he shows that certain white blood corpuscles disintegrate from the moment they leave the blood stream. The experimental proof of this is as follows: Blood from an artery or vein is caught in a tall jar in which it is rapidly cooled. The jar is now surrounded by ice, the blood remains uncoagulated, the red blood discs sink to the bottom, the white ones rise to the top, and serum separates the two. If the colorless liquid at the top be collected with a pipette, almost immediately it will be found to contain numberless colorless corpuscles, and if the observation be continued it is seen that a certain number of the leucocytes rapidly undergo disintegration. In the process of disintegration the corpuscle breaks up into granules, which hold together for a time in the liquid, but eventually disappear. Prof. Schmidt has seen the first formed filaments of the fibrine originate from the heaps of granular *debris* which the corpuscles leave behind them. Further, if the white blood corpuscles be withdrawn coagulation is arrested. Proof of this is rendered possible by the fact that leucocytes, at the temperature of freezing, acquire such firmness and consistence that they are held back by the ordinary method of filtration. This being the case, the physiologist can obtain uncoagulated plasma free from leucocytes. The filtrate thus obtained is absolutely transparent and deprived of its power of coagulation. If now we wash the white blood corpuscles collected on the paper filter and add them to the decorpusculated plasma, the latter is restored to its original coagulability.—*Detroit Lancet.*

TYPHOID FEVER OF RENAL FORM.—In *Le Progres Medicale* of March 9, 1878, is a brief notice of a little work having this title, by Dr. Charles Amat, of Val-de-Grace.

Dr. A. states that typhoid fever is divided into different forms, as different organs or systems are most prominently affected; for example, the central, cerebro-spinal and thoracic forms have been especially described. The renal form, he states, has been neglected thus far. He expresses his views in the following summary:

1. The typhoid poison may affect principally the kidneys, just as the brain, spinal marrow or lungs may be the organs chiefly affected.

2. Although mentioned by Gubler, Robin and Hardy, no complete description has yet been given of this form of the affection.

3. It possesses a special symptomatology—slight diarrhœa, extreme debility, ashy paleness of the skin, copious epistaxis, morbid delirium, and very high temperature. There is but little eruption. The special symptoms connected with the urinary organs are, the bloody appearance of the urine, the presence of a sediment formed of red and white blood corpuscles and tube casts, and also the presence of albumen in considerable quantity.

4. The ordinary form of typhoid fever is differentiated from the renal form by the greater intensity of the abdominal symptoms, a more copious diarrhœa, by the delirium being less marked, the temperature lower, the eruption more confluent. The urine in the ordinary form is of an orange color; the sediment is not constant, and, when present, consists chiefly of urates and phosphates. The albumen is in very small quantity, if present at all.

5. In the renal form but few of the intestinal follicles are affected. The kidneys are enlarged, and present the alterations of interstitial nephritis.

6. The renal form may be confounded with ordinary typhoid fever, and in certain cases with simple nephritis.

7. The course and duration of the affection are variable; the termination is generally in death.

8. The condition of the urine is important with respect to prognosis; a diminution in the amount of sediment and albumen in the urine being of favorable import.

9. The patient should be subjected to a milk diet, and cold baths are to be scrupulously avoided. —*Cin. Med. News.*

HOW DOES QUININE INFLUENCE THE EMIGRATION OF WHITE BLOOD CORPUSCLES IN CASES OF INFLAMMATION?—The question, whether the stopping of the emigration of white blood corpuscles by quinine was simply the result of its influence upon the protoplasm of the white blood corpuscles, or was caused also by disturbances in the circulatory apparatus, induced Dr. J. Appert to make some new researches in this line. He operated with blood from the Rana temporaria and the Rana esculenta, and found that the amœboid motions of the white blood corpuscles cease, and that they assume a granulated appearance in the course of 10 to 90 minutes when brought into contact with solutions of quiniæ mur., having a strength of from 1-200 to 1-2000. Even weaker solutions (1-2500 to 1-3000) influence the motions of the white blood corpuscles. But a solution of 1-3500 causes no perceptible changes of them. Upon the other elements of blood, quinia has no effect.

When in cases of inflammation quinine was locally applied, the doctor found that continued irrigation of a 1-10th to 1-5th per cent. sol. upon a wound (of the tongue) limited the emigration, dilated the vessels and hastened the circulation.

Hypodermic injections had the following results in cases of inflammation: Single doses of quinine, amounting to from 1-3500 to 1-4000 of the frog's weight, not only stop the emigration of white blood corpuscles but also hinder their attachment to the inner walls of the vessels. Besides, the cells turn darker, their amœboid motion is arrested, and the pulse as well as the circulation is slower. Doses of 1-444 of the frog's weight, injected within three or four hours, limit the emigration of cells and those within the vessels appear darker.

When the doctor compressed the arteries (of the tongue) he found after the application of quinine a retardation of the circulation, a contraction of the vessels increasing with the strength of the solution, an intermittent current of blood in the larger arteries, a decrease in the calibre of the axis of the red current in favour of the broadness of the plasmatic current of the margin, and numerous attachments of the white blood corpuscles to the walls of the vessels. In the veins there was observed a retardation of the current, a broadening of the red current to the walls of the vessels, and no tendency to attachments to the walls of vessels on the part of the white corpuscles. At last, no emigration was observed for hours.—*Virchow's Archives, Vol. 71, 1878.)—Detroit Lancet.*

WHOOPING COUGH.—M. Dervieux believes he has found a preservative means in aconite, associated with ipecacuanha and cherry-laurel water. This mixture is either a veritable prevention, or simply an abortion. His formula is as follows:

Extract of aconite,	.05 grammes	=	⅘ grain nearly.
Cherry-laurel water,	4.00	"	=1 drachm "
Syrup of ipecac,	3.00	"	=¾ " "
Mucilage,	200.00	"	=6½ ounces "

This is given as soon as the characteristic cough presents itself, in doses of a teaspoonful every hour to young infants; two teaspoonfuls to those more than three years of age: and a tablespoonful to adults every hour.—*Lyon Médical.*

DELAYED LIGATURE OF THE FUNIS.—Dr. Budin, while *interne* at the Maternitè, came to the conclusion from his investigations that it is better not to tie the funis till one or two minutes after the complete cessation of the pulsation. By tying it immediately after birth we in fact prevent the child deriving about ninety-two grammes of blood from the placenta. Now, as Welcker, Bischoff, and others have shown that the weight of the blood of a new-born infant amounts on a mean to 270 grammes, or about a thirteenth part of the weight of the body, abstracting ninety-two grammes may be considered as equivalent to bleeding an adult of the weight of sixty-five kilogrammes to the extent of 1,764 grammes. Dr. Hèlot, Surgeon to the Hospice at Rouen, has since examined the subject with the intention of showing whether the infant really acquires this blood, by counting the globules of blood by Hayem's method and by weighing the infant immediately after birth before dividing the cord, and then again when the cord has ceased to beat. By these means he found that there was an increase of 209,632 globules, and an addition to the weight of the child of fifty-three grammes. He therefore thinks that in normal cases rapid ligature of the cord should be entirely rejected, this operation not being performed till some instants after respiration has been completely established.—*London Med. Times and Gaz., from Gaz. des Hop.*

PURE DIALYSED IRON.—"A year since, when Dialysed Iron was a novelty, I commended it in the *News*, as a most valuable addition to the Materia Medica. Twelve months of additional experience have confirmed my faith in its excellence. The object of this note is to call attention to the great variety of *spurious* preparations sold under the name of Dialysed Iron. In this city I have found nine varieties of so-called Dialysed Iron. Some of these were manufactured here, but most of them where made elsewhere. Genuine Dialysed Iron is nearly tasteless. It has the faintest possible saline flavor and a mere suspicion of roughness. Slightly diluted, its taste recalls that of fresh blood. It is not in the least unpleasant, and does not blacken the teeth or tongue. It seldom or never produces any gastric disturbance or headache, and very rarely constipation. It is exceedingly reliable and rapid as a tonic.

"The *spurious* forms of this drug are without the characteristics of taste and efficacy above enumerated, and chemical analysis readily detects their deficiencies. One of the spurious specimens before alluded to, was little less unpleasant than the tincture of muriate of iron, another was excessively acid, another was decidedly saline, another was exceedingly astringent, another was sweetish, another was bitter, and another was seemingly only colored water; another more nearly approached correctness, but only a single specimen possessed the peculiarities of the true article.

"My attention was first directed to this matter through the failure or misbehavior of the Dialysed Iron in practice. It is but just to say that the good specimen is from Wyeth & Brother, the original manufacturers of this medicine in America. Wyeth's Dialysed Iron sells at about a dollar a pound. Other makes may be bought at fifty cents."—*Dr. L. P. Yandell, Louisville, Med. News.*

TREATMENT OF ENLARGED PROSTATE.—It has been found desirable in the Dispensary practice to adopt a method of treatment for enlarged prostate, obviating the use of any instrument, as the patients are usually unable to buy one. A certain amount of relief is obtained by the fluid-extract of buchu or of triticum repens, when the secretion is turbid or acrid; but their efficacy is of course, slight when unaccompanied by the introduction of the soft catheter. It was my good-fortune to try the effect of the fluid-extract of ergot in large doses for those cases, and was tempted to do so by the success I obtained from it, in treating a case of simple incontinence without enlarged prostate. The treatment proved successful, and is now a standard one with us in the surgical department. The following case will illustrate the way in which it acted:

W. M., aged twenty, laborer, came to the Dispensary May 10, 1876. He stated that for some 10 or 11 years he had suffered from dribbling of urine. On May 3rd his troubles were much aggravated, and he came for relief. A catheter was introduced, relieving his bladder. The patient was then at once put upon the fluid-extract of ergot in tea-spoonful doses, to be taken three times a day. Previously he had passed water with extreme pain and difficulty seven or eight times a day, and from four to five times at night. He experienced great relief from the ergot.

May 23rd.—He reported that his water was now passed only five times a day, and twice at night. The water is clear, and there is little pain in passing it. In cases where the patient can buy the soft, elastic catheter (Nelaton's), it is recommended, with directions to use it twice or three times daily. This treatment may be combined with the use of ergot; but ergot alone has been found of great advantage, the patients returning at regular intervals to have their medicines renewed. —*Dr. Satterthwaite's N. Y. Med. Journal.*

A DELICATE MEDICAL QUESTION.—A letter from Paris recites this event:—A young widow, whose aged husband had died, becomingly appeared two months afterward at the Paris Marie, to announce her forthcoming marriage to her cousin. "Pardon me, madame," observed the clerk, "but the law peremptorily forbids a woman to marry within ten months of her husband's death." "Yes, truly," replied she, "but are not those eight months of paralysis to be taken into consideration?"

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science
Issued Promptly on the First of each Month.

☞ Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; J. M. BALDWIN, 805 Broadway, New York, and BALLIERE, TINDALL & COX, 20 King William street, Strand, London, England.

TORONTO, JULY 1, 1878.

MORTALITY AMONG CHILDREN.

From the mortality returns of the Boards of Health of cities in this country it appears that about 40 per cent. of all the children born, die during the first year; that 20 per cent. die before the fifth year, and that 65 to 70 per cent. die before the tenth year, or more than half of all the children born are dead before the end of the 1st decade! Such frightful mortality among the young of the human race must surely be due to some explicable cause, or causes, for among the young of no animal, native or domestic, is the mortality amongst the young so great.

If we refer to the tables of mortality in England we will find that it has been estimated that out of 100,000 children born alive, 15,000 only, or a little less than one-seventh have died during the first year; 6,000 in the second year, or 1-17, and by the end of the 5th year nearly 26,000 or upwards of ¼, have perished. During the next five years the children are left more to themselves, exercise more, and although during these years, they run the gauntlet of most infantile diseases as measles, scarlatina, whooping cough, &c.; yet only 5,000 die during this period and so on, less during each successive year up to 15, when it begins to increase. In Montreal, the mortallty among infants has been excessively large, as compared with any other city in the world, and the Health Officer, Dr. Larocque, finds it necessary to apologize for this, by referring to the fact of the large birth-rate which, owing to the prolific character of the French portion of the population, is greatly in excess of any other city. The infant mortality has also been very great in Toronto and other large cities.

We will here quote from the elaborate report of Dr. Larocque, to confine ourselves to published facts, and figures, where we find that the total death rate of the City of Montreal during 1876 was 4,557, an increase of 229 over that of 1875. The greatest mortality rate occurred during July and August, owing to the meteorological state of the atmosphere promoting diarhœal diseases among infants, while in September the mortality rate continued high, owing to the prevalence of small-pox.

The following comparison of death rate between Montreal and other large cities is given in the report: In Montreal the death rate under 1 year was 39.78 per cent., under 5 years 62 per cent; in New York (1867 to 1873), under 1 year was 30.5 per cent., under 5 years 50 per cent; in Cincinnati (1867 to 1873), under 1 year was 25.5 per cent., under 5 years 48.1 per cent; in Cleveland (1874), under 1 year was 37 per cent., under 5 years 54 per cent; in Boston under 1 year was 25.26 per cent., and under 5 years 44.34 per cent; in Philadelphia (1875), under 1 year was 22.11 per cent., and under 5 years 41.39 per cent.

In Montreal the birth rate is 49.53 per 1,000 of population; in Philadelphia, 24.07 per 1,000; in Boston, 32.23 per 1,000; in Cleveland, 22.32 per 1,000; in New York, 24 per 1,000. Boston has the highest quoted; but that of Montreal exceeds it by 17.30 per 1,000.

The report says very tersely and forcibly, "The total number of deaths among children, under 10 years of age, during the year, was three thousand and ninety-seven, giving a percentage of 67.46 to total mortality; under 5 years 62.71 per cent. Over one-third of the annual number of deaths occurred among children under 1 year, more than one-half under 5 years, and two-thirds under 10 years. Small-pox, measles, diphtheria and scarlatina, to which we owe the excess of mortality under 10 years, cause comparatively few deaths among children under 1 year, the excess during that period being due more especially to infantile debility and diarrhœal diseases."

Further the report ascribes to diarrhœa, dysentery and cholera infantum 658 deaths among children under 10 years of age, 456 of which were under 1 year, and these diseases were almost wholly confined to the third quarter. "The highest mortality occurred among the French-Canadians. Mostly

all the deaths occurred under 1 year, and from 1 to 5 years," and the high death rate is ascribed "chiefly to the excessive heat of summer and improper alimentation among the poorer classes." From convulsions there are recorded 122 deaths, and most of these occurred from errors in diet. The four diseases accounting for the greatest number of deaths respectively were as follows in their order as they stand: Infantile debility, under 1 year, 435; under 5 years, 50; under 10 years, 3; from diarrhœa, under 1 year, 230; under 5 years, 55, and under 10 years, 1; from cholera infantum, under 1 year, 204; under 5 years, 33, and under 10 years, 3; from small-pox (not necessarily an infantile disease), under 1 year, 160; under 5 years, 367; under 10 years, 77.

Estimating the population at 133,000, the death rate is 29.09 per cent. or 34.26 per 1,000, while the excess of death rate among children, under 10 years of age, in Montreal is 13 per 1,000 over Philadelphia and 10.28 per 1,000 over Boston—or estimated, according to Dr. Farr's valuation of human life of from 1 to 5 years $225—the annual loss over Boston in money value in children is $2,250 per annum, and over Philadelphia $5,175 per annum; the average value of life, according to Farr, being for a child, under 1 year of age, $20; from 1 to 5 years $225, at 10 years $461, at 20 years $936, at 25 years $984, at 55 years $552.

Now if we add to the annual loss by deaths among children actually born, an additional number, say one-fourth as many more that have never been allowed to be born, by the new fangled notions respecting the prevention of conception, in defence of which these people argue that an excess of population always means an excess of pauperism, it represents a money value of large amount. Parents constantly raise the cry against the city, of bad drainage, &c., all true enough to a certain degree, entirely overlooking the errors in nursing and private management of infants, by which, in the matter of diet alone, an enormous amount of mortality, is occasioned among the little ones. Indeed, so gross is the ignorance, neglect or carelessness often manifested in the care of infants, too often left as they are, almost entirely to the charge of an ignorant nurse, or to the care of the older children—that the mortality rate among infants can scarcely be wondered at.

In regard to the general cry of unhealthiness of cities, the thousands of healthy children teeming the numerous public schools attest the contrary, where there is not homicidal nursing, or bad management of the children at home. What may be presumed to be the reason of the high mortality rate in all foundling institutions, over that of private nursing, but the difference in the manner of feeding—that is between natural and artificial nursing; therefore, we take it that in cities all children starting on equally fair conditions from birth, with the same nursing and home management, should have equally the same chances of living, or expectation of life, leaving aside the chances of death arising from the danger incurred to all in running the gauntlets of children's diseases, which to many, may be rated among the accidents of life.

PHYSICAL CULTURE.

An exchange has an article from which we take a few extracts, on the "Limits of Physical Culture" which is well worthy the consideration of members of the profession. We can recall several instances during our own experience in practice in which cardiac affections were directly attributed to violent or excessive bodily effort. One notable instance of aortic valvular disease of the heart in a young man of giant proportions is a remarkably direct case of injury to this organ from the over exertion of hard rowing, and the sudden death of the English oarsman during the race with the St. John's crew, is another instance of the danger of excessive exertion.

"We have frequently had occasion to dwell upon the fact that, while moderate physical culture is a great benefit—indeed a necessity, to insure a proper balance of mental and bodily powers, and consequent health and longevity—physical over-culture is a great evil, leading to results diametrically opposite to those sought to be attained. At one end of the series is a constitution, weak, and unfitted to resist disease or the effects of labor, on the other an organization strained to its utmost and ready to yield under the slightest addition to the stress. Obviously between these extremes there must be a mean, up to which all culture is beneficial, and beyond which all is over-culture. The question is, whether that mean is

in the nature of a personal equation for every one, differing for each individual constitution; or whether it is possible to formulate general laws, true for all systems." In the case of physical culture the point specially to be determined by actual physiological investigation is, to what extent the body may be benefited. This known, any one may easily discover for himself when the limit is reached, and will understand that to carry his training still further is a positive disadvantage and injury. Such an investigation has lately been made by Dr. Burey, of Paris, in the *Ecole de la Faisanderie*, a gymnasium where the soldiers are drilled who are destined to be the gymnastic instructors of the French army. No better set of men could be selected for examination, for the reason that each individual is virtually a model for others, and, therefore, his physical culture is brought to the best possible state. Dr. Burey continued his investigations with the utmost care and minuteness for six months, during which period the progress of over a thousand men was closely watched and criticised. As a general result, he states that gymnastic exercises, 1st, increase the muscular forces up to 25 and even up to 38 per cent., at the same time tending to equilibrate them in the two halves of the body. 2nd. Increase of the pulmonary capacity at least one-sixth. 3rd. Increase in the weight of men up to 15 per cent., on the other hand diminishing the volume. This augmentation exclusively benefits the muscular system, as is demonstrated by its elevated dynamometric value. During the first half of the course of six months, the increase of force was most markedly noted.

M. Eugene Paz also, has for a long period been observing the results produced by methodical physical exercise in certain invalids, and in a large number of people of various callings, notably artists, literary and business men, and others, whose muscles are normally less voluminous than those of picked soldiers. By means of a variety of ingenious mechanical apparatus, and by a course of investigation wholly different from that of Dr. Burey, M. Paz has reached precisely the same results. He notes especially the three results referred to by Dr. Burey, viz., increase in weight, decrease in volume of the body, and also augmentation of the pulmonary capacity. Three operatic singers, who were vigorously trained for a year, obtained a maximum lung power, corresponding exactly to an increase of one-sixth. It follows, therefore, that Dr. Burey's results may be considered in the light of a general law, and likewise as a guide to what is correct physical culture.

The lacrosse playing of Canada is developing a few instances of the evil effects of over-trainiug in athletic sports.

LIQUEFACTION OF OXYGEN.— The *Chemical News* of the 4th of January contains a full account of Mr. Picquet's brilliant discovery of the liquefaction of oxygen, contributed by the discoverer himself. Docter Andrews long ago proved that for every gas there is a certain "critical temperature," above which it is impossible to liquefy the gas, and he pointed out that the reason why all Faraday's attempts to liquefy the so-called permanent gases had failed, was probably that the experiments had been made at temperatures above the critical point. Dr. Andrews himself had subjected atmospheric air to a pressure exceeding 500 atmospheres, at the temperature of melting ice, without the slightest approach to liquefaction becoming apparent, and Faraday had previously submitted both air and its constituent gases to the lowest temperature then known—140° C.—with like negative results. Mr. Picquet's success is due to a cleverly constructed apparatus, which enables him to make use, at the same time, of pressures up to 800 atmospheres, and of the lowest temperatures attainable.

He says that his object in undertaking the experiments which led to this discovery, was to prove that molecular attraction is a universal law of matter Under the intense degree of refrigeration attained by the sudden expansion of its highly compressed oxygen, a portion of the gas must either have been reduced to the absolute zero of temperature, and have fallen as an impalpable powder, or it must have submitted to the law of attraction and formed liquid globules. The result proved that the latter alternative was the true one. Since the liquefaction of oxygen, Mr. Cailletot, of Paris, has succeeded in liquefying the only remaining gases, hydrogen and nitrogen, thus demonstrating that the gaseous condition is not essential to any substance, but only an accident, depending upon the relations of temperature and pressure. These results may, therefore, be fairly said to constitute the keystone of the arch of the dynamical theory of heat.

REMEDY FOR POISONS.—It is stated by an American exchange that sweet oil introduced into the stomach is a neutralizer of all poisons of an acrid or corrosive character. The remedy is harmless, nearly always at hand, and is worthy of a trial.

OWNER WANTED.—We received from a subscriber, by post, on the 5th ult., the sum of six dollars in payment of subscription to the *Lancet*, As no name was attached to the enclosed slip we are at a loss to know from whom it was received. The money is perfectly safe, but we owe somebody a receipt for it.

SCIRRHUS CANCER OF THE BREAST IN THE MALE.—Mr. Christopher Heath, of University College, London, reports in the *London Lancet*, a case of scirrhus of the breast in the male. The patient was about 47 years of age, of healthy parentage, and no family history of cancer. He first noticed it four years ago. He attributed his disease to a habit he had of striking his hand against his chest. The cancer was removed and also some enlarged glands in the axilla.

LONGEVITY.—The average of human life is about thirty-three years. One quarter die before the age of seven. Of every one thousand persons, one rarely reaches the age of one hundred years, and not more than one in a hundred will reach the age of eighty. There are on the earth 1,000,000,000 inhabitants. Of these about 38,333,333 die every year; 91,824 die every day, 7,789, every hour, and sixty every minute. The married are longer-lived than the single. Tall men live longer than short ones.

BRITISH DIPLOMAS.—The following gentlemen have successfully passed the required examination, and were admitted to membership in the Royal College of Surgeons, England, in May last :—D. H. Dowsley, M. D., of Clinton, and G. T. McKeough, M. D., (Trinity College) of Chatham.

The following gentlemen have also passed the examination at Edinburgh for the double qualification L.R.C.P., L.R.C.S., Edin :—J. E. Eakins, M.D., of Newburgh; A. E. Mallory, M. D., of Cobourg; W. D. Robertson, M.D., of Montreal, and A. T. Somerville, M.D., of New Brunswick.

BRAIN HYGEINE.—The brain that is not habituated to steady hard work, is liable to be more or less injured by any spasmodic strain. In a healthy condition, however, supplied by pure blood, so as to insure the true balance between destruction and repair, the organ will bear almost any amount of tasking. So long as an intellectual worker can sleep, eat and exercise fairly, he is master of the situation ; and the number of hours he devotes to his labors is much at his option. When sleep becomes fitful and disturbed, and appetite fails, let him beware ; to persist in labor despite these warnings is to unsettle the system and either suddenly or gradually to break it down. Where there are extra cares and worries, whether connected with the daily occupation or otherwise, the difficulty of fulfilling the conditions of a healthy brain is increased tenfold.

A LADY WITH TWO HEADS.—As will appear from the following notice in the daily press, the double headed child, noticed in a previous issue is not altogether unprecedented. The "Two-headed Nightingale," is with other interesting specimens of humanity, to give a series of entertainments in Alloa, Scotland, early in April. This lady possesses two heads on one body, with two chests and four arms. Such combinations of fœtal development as these cases illustrate are difficult of explanation, and only serve to show how little we really know of the mysteries of nature's operations.

THE HOMŒOPATHS IN DIFFICULTY.—The members of the New York Homœopathic Society, have lately discovered that they are liable for damages at law, if they swerve from the practice of the principles which they publicly profess. According to high legal authority, which has been confirmed by the opinion of Judge Davis, of the sepreme court of the United States, when a physician undertakes to treat according to the principles and practice of any particular system, he must conform to that system in his treatment., and a failure to do so would be a violation of his contract, so implied by the law, and he would be held responsible for such violation. It is therefore proposed to so alter the Constitution of the Society, as to make it legal for them to practice on any system. This seems like lowering the homœopathic flag.

ROYAL COLLEGE OF SURGEONS.—Sir Joseph Fayer, Mr. Oliver Pemberton, and Dr. Norman Chevers are among newly-elected Fellows.

CASCARA SAGRADO.—This is reputed to be the best remedy for chronic constipation of the bowels yet discovered. The dose is from a teaspoonful to a tablespoonful of the fluid extract, three times a day. It is prepared by Parke Davis & Co., Manufacturing chemists, Detroit.

PAPER LINT.—This substance which is now being introduced and used instead of ordinary lint possesses some most excellent features. It is lighter, cheaper, and as an absorbent, far superior to cotton or linen. It can be readily impregnated with carbolic acid, salicylic acid, thymol or other antiseptics, and used wet or dry.

A MONUMENT TO CLAUDE BERNARD.—The Paris Société de Biologie has appointed a committee to solicit subscriptions for the erection of a suitable monument to perpetuate the memory of the illustrious savant, of whom the whole French nation is justly proud.

Reports of Societies.

MICHIGAN STATE BOARD OF HEALTH.

The regular annual meeting of this Board was held at Lansing, Tuesday, April, 9th, 1878, the following members being present: Dr. R. C. Kedzie, President, Hon. Le Roy Parker, Rev. D. C. Jacokes, and Henry B. Baker, Secretary.

It being the annual meeting, President Kedzie, presented his annual address, entitled "The Work of the State Board of Health," in which he gave an account of the past work of the Board, and outlined its work for the immediate future. Among the many duties which the Board had performed since its organization, about the first effort was for the establishment of well organized and effective Boards of Health, in every township, city, and village throughout the State, securing the appointment of a Health Officer, by every Board of Health, and then bringing the State Board of Health into communication and active co-operation with all these local Boards of Health, thus gaining two important objects; (1) having an effective channel for imparting information, (2) having organized bodies through which the statistics in regard to public health could be gathered from all parts of the State. Besides this the Board had secured the asistance of many physicians throughout the State, receiving from them many valuable reports, communications, and replies to circulars regarding the cause and progress of various diseases. He referred to the general plan of work within the Board, by distributing the duties to regular committees on different subjects, and claimed that every State Board of Health subsequently organized, had approved of the plan by adopting it. In speaking of the efforts to impart information, and gather statistics bearing on the public health, he said the results were most gratifying. Not only sanitarians, but the people at large, are grasping that very important and revolutionary idea, the posibility of the prevention of disease and death; that many diseases may be prevented altogether, or that when they do appear, they may as certainly be stamped out as a forest fire may be extinguished, or they may be walled in like an inundation. A people who fully grasp the idea that half of their sickness and death may be avoided, as truly and really as they may prevent the destruction of their crops by cattle, by proper fencing, have taken a long stride in state medicine. This fact ought not to be lost sight of, that each person is in the broadest and fullest sense healthy and safe only as every person about him is healthy and safe. In outlining the future work of the Board, the Doctor said that the law now says that the Board shall from time to time recommend standard works on hygiene, to be used as text books in our common schools. He recognized the fact that public health measures, have their foundation on vital statistics, and it becomes therefore a matter of necessity as well as of law that we should study these records, in order to promote the health and safety of the people. In his opinion the question of food and its preparations for human use, has more vital relations to the public health and welfare than all other physical causes combined. If our people can be taught to preserve and prepare their food so as to secure the best dietetic results, preventive medicine will have won a grand victory. It could then no longer be said, that "our appropriate monument would be a frying-pan and our epitaph saleratus."

Dr. Baker made a report of the work done i-

the office during the quarter just ended. Blanks and circulars of instruction for annual reports of health officers and clerks of local boards of health had been sent out, and 1,189 documents of this kind had been received, examined and filed. Dr. Kedzie was asked to attend the meeting of the American social science association at Cincinnati May 18 to 24; and Dr. Baker was asked to attend the coming meeting of the American public health association.

ONTARIO MEDICAL COUNCIL.

MINUTES AND PROCEEDINGS.

The Council of the College of Physicians and Surgeons of Ontario met in Toronto on the 11th ult. Dr. Daniel Clarke, President in the chair. The minutes of the previous meeting were read, and confirmed.

The following new members took their seats; Dr. W. L. Herriman, and Dr. E. M. Spragge in the place of Drs. Dewar and Hodder deceased.

The President then delivered his retiring address. After thanking them for the support they had awarded him during the past year, he said it was with great sorrow he had to report the decease of Dr. Dewar and Dr. Hodder. He paid a feeling tribute to the high professional standing of Dr. Dewar, and made an acknowledgement of the services he had rendered the Council. The name of the late Dr. Hodder was familiar wherever medical literature had a place, and his loss would be keenly felt by the profession and the Council. He then referred to the necessity of providing a suitable building for examining students this year, the University Convocation Hall having proved to small for the purpose, and suggested that the building in the Queen's Park at present occupied by the Registrar should be fitted up for the purpose, or that a piece of property should be purchased in a central part of the city and a suitable registrar's office and examination hall erected thereon. He reported that about eighty quacks had been prosecuted during the year, and while on this point alluded to the remark made by Dr. Hingston, in an address before the Canada Medical Association, to the effect that Dr. Jenks, of Detroit, had been threatened with prosecution for practising medicine on the Canada side of the line. His explanation was that while the Ontario Medical Council did not object to distinguished men from the States coming over to consult with Canadians, it was but doing justice to our own medical men practising along the frontier to refuse to permit Americans to take patients of their own in Canada, unless they took out a license here and passed the regular examination. He had endeavoured to have the penal clauses of the Act enforced in all instances except in the case of graduates who gave valid reason for not taking out a license last year. The representatives of the Council had introduced into the Legislature amendments to the Medical Act, but, although they were in principle approved by both sides of the House, they were not passed, owing to the lateness of their introduction. He suggested that the Council might, out of their surplus funds, establish three bursaries of $20, $40 and $60, for competition by medical students.

After a vote of thanks to the retiring president Dr. Campbell was elected president for the ensuing year and Dr. Allison vice-president.

The PRESIDENT elect, in returning thanks, said that he felt great pleasure at his election, not from motives of gratified ambition, but because the Council had done an act of justice. He had always worked hard in the interests of the Council, and not in the interests of a particular School. He assured them that this impartiality he would still maintain in his position as President.

STANDING COMMITTEES.

The Committee appointed to draft Standing Committees for the year reported as follows, which was adopted :—

Registration.—Drs. Bethune, Bogart, Henwood, Lynn, Vernon, Spragge.

Printing.—Drs. Cornell, Carson, Macdonald, Morden, Muir, Lynn.

Finance.—Drs. Hyde, Herriman, Henderson, Irwin, Ross.

Rules and Regulations.—Drs. Brouse, W. Clarke, Berryman, D. Clark, Bogart, Edwards.

Education.—Drs. Brouse, Aikins, Berryman, Geikie, Wm. Clarke, Edwards, Grant, Lavell, Logan, MacLaughlin, Morrison, D. Clark.

Several communications and petitions from medical students and others, were received and referred to the respective Committees.

NOTICES OF MOTION.

Dr. Allison—To ratify the by-law regulating the proceedings of the Council, as adopted by the Executive, leaving it open to any member to offer amendments during the present session.

Also, that all appointments to the office of medical examiner be made among members of the profession outside the Council.

Dr. Campbell—Three resolutions upon reciprocity of registration with the General Medical Council of Great Britain.

The Council then adjourned.

SECOND DAY'S PROCEEDINGS.

The Council met at 10 o'clock, the President in the chair.

REPORTS.

The report of the Board of Examiners was received and referred to the Education Committee.

The report of the Medical Prosecutor was read and referred to the Registration Committee. It stated that he had during the year visited every county in the Province of Ontario, and had found a large number of unregistered practitioners. The enforcement of the Act gave general satisfaction, the public being favourable to it; but many who openly violated the Act had escaped because evidence could not be obtained without great expense and loss of time. Out of seventy-five cases tried all had been fined, but in twenty cases the fines had not been paid.

Dr. DANIEL CLARK, seconded by Dr. EDWARDS, moved the appointment of a Committee composed of the President, Dr. Wm. Clarke, and Dr. Berryman to draft a suitable memorial of condolence with reference to the late Drs. Dewar and Hodder, to be forwarded to their respective families. Carried.

The PRESIDENT, on behalf of Dr. O'Reilly, Medical Superintendent of the Toronto General Hospital, extended an invitation to the members to visit the General Hospital and see the improvements which have taken place there.

The REGISTRAR read the minutes of the various meetings of the Executive Committee held during the year, which were referred to a special committee.

The By-laws to regulate the proceedings of the Council was next brought under discussion, but on motion of Dr. Bethune it was agreed to postpone them till to-morrow.

Dr. ALLISON moved, that in consequence of the extreme dissatisfaction that exists among the members of the profession with the manner in which the examiners are appointed, it is expedient that in the future no member of the Council shall be appointed to the office of medical examiner, but that all appointments to that office shall be made from among the registered members of the profession outside the Council.

He was ably supported by Dr. Herriman who said that in his constituency it was made a test question and because of his views he was elected by a large majority. It was opposed by other members of the Council who argued that the council should have the right to appoint the best men wherever they could be found. The motion was lost.

Dr. AIKINS, seconded by Dr. W. CLARKE, moved:—

That a deputation, consisting of the undernamed members of the Council do wait upon the Honourable Attorney-General, at his departmental office, this day at 4 o'clock, to request aid from the Government of Ontario towards the erection of a proper building for the College of Physicians and Surgeons of Ontario:—Drs. Aikins, D. Clarke, W. Clarke, Geikie, Brouse, and Ross, with the official members.

Dr. AIKINS presented the Treasurer's report for the past year, which was referred to the finance committee. The leading features were:—

RECEIPTS.—Balance on hand last year, $5,208-14; Dr. Pyne, Registrar, $1,319 75, matriculation examination fees, $861 40; professional examination fees, $5,910; interest, $79 64; sundries, $50; total, $13,428 93.

DISBURSEMENTS.—Expenses of last meeting of Council, $1,208 30; accounts, $1,111 29; expense of Executive and sub-Executive Committee Meetings, $534 30; salaries, $1,000 00; expense of April examinations, $1,151 23; balance in bank of Commerce, $8,423 81; total, $13,428 93.

It was recommended that the number of members on the Executive Committee be reduced, and that members at a distance be not placed on.

The case of Dr. Chaffey was next considered. He was not notified at the proper time, to enable him to appear before the special examiners appointed for the purpose of examining certain persons for the License. It was moved by Dr. Logan and seconded by Dr. W. Clarke, that Dr. Chaffey's case be referred to a special committee consisting of Dr. W. Clarke, Clark, Edwards, Morrison and the mover.—*carried.*

Dr. ALLISON, seconded by Dr. MCLAUGHLIN, moved,

That leave be given to bring in a by-law to amend the electoral by-law of 1874, by abolishing the requirement, that those voting at elections for members of the Council shall be compelled to make their declaration before a Justice of Peace. The motion was carried, and the by-law was passed through every stage and became law.

Dr. GRANT, seconded by Dr. BROWN, moved,

That an humble address be presented by the College of Physicians and Surgeons of Ontario to His Excellency Lord Dufferin, on the occasion of his departure from Canada; and that a Committee consisting of Drs. D. Clark, W. Clarke, McDonald, Berryman, with the mover and seconder, be a Committee to frame the same.

The PRESIDENT reported the result of the interview with the Government. The leader of the Government did not promise them to grant their wish; but there was strong reason for hoping it would be acceded to. The Minister of Education especially appeared to be in favour of the erection of a building. He recommended that a Special Committee be appointed to continue the negotiations. The ATTORNEY-GENERAL promised to give

the matter his serious consideration, and to consult with the Senate of the University about the proposal.

Dr. BROUSE, seconded by Dr. GRANT, moved :—

That in the opinion of this Council the time has arrived to secure a permanent building for its use; that a Committee be appointed to take the necessary steps for such, and that any arrangement the Committee may make shall be binding on the Council; the Committee to consist of Drs. Allison, Aikins, D. Clark, W. Clarke, Ross, Berryman, and the President.

Dr. HENWOOD presented a statement containing a schedule of fees to be charged in the counties of Brant and Haldimand; referred to the Registration Committee.

Dr. MCLAUGHLIN presented the report of the High School Committee appointed to consider the advisability of adopting the intermediate examination in lieu of the matriculation examination. The report, which recommended the Council not to make the proposed change, was adopted.

A number of accounts were presented and referred to the various committees, after which the Council adjourned.

THIRD DAY'S PROCEEDINGS.

The Council met at ten o'clock.

Dr. BETHUNE, on behalf of the Registration Committee, presented a report, which was adopted, recommending that the tariff of fees for the counties of Brant and Haldimand be adopted; that the requests of S. G. Robinson, J. B. Baldwin, and J. S. Campbell for permission to practice be not granted, as contrary to the Medical Act; that the case of Dr. Bomberry, an Indian, and a graduate of McGill College, who desired registration in Ontario, receive the favourable consideration of the Council; that Dr. Mallory's request for registration be not granted until he comply with the requirements of the Medical Act; that Dr. Drummond, of Jamaica, West Indies, who applied for registration in the Dominion under a misapprehension of the terms of the Medical Act, be commuuicated with by the Registrar, and be furnished wtth a copy of the Medical Act; and that the repoit of the Public Prosecutor be referred to the Finance Committee.

The Council went into Committee on the report on Dr. Bomberry's case.

Dr. BETHUNE explained that the Dr. only desired to practice among the Indians, and that he desired to be protected from prosecution. He had been prevented from attending the last examination by illness.

On motion, it was agreed that Dr. Bomberry be granted a special examination.

At a subsequent sitting it was recommended that Drs. Ryerson, Nevitt, Comfort, and Chaffey be also allowed a special examination at the same time.

The PRESIDENT stated that he had received a letter from the Registrar of the General Medical Council of Great Britain, embodying a copy of the minutes of that Council, a copy of the British Medical Act, and other documents. He inferred from the communication that the British Council would be quite ready to interchange registration with Canada. The communication was referred to the Registration Committee.

The PRESIDENT, having left the chair, moved a series of resolutions regarding reciprocity in medical registration.

1. *Resolved*—That the President of the College of Physicians and Surgeons of Ontario be authorized to inform the Registrar of the general Medical Council of Great Britain that his certificate of registration to practice both medicine and surgery in Great Britain will be accepted by the Council of the College of Physicians and Surgeons of Ontario, as constituting a sufficient title to registration in the Ontario Medical Register whenever the Registrar of the General Medical Council of Great Britain notifies our Registrar that he is prepared to accept the certificate of registration in the Medical Register of Ontario as a sufficient title to registration in both medicine and surgery in the Medical Register of Great Britain; and that such registration shall be allowed in Great Britain upon the same terms of payment as required in Ontario, namely, two pounds sterling.

2. *Resolved*—That the Council of the College of Physicians and Surgeons of Ontario recognize the force of the principle enunciated by the "Medical Acts Committee" of the General Medical Council of Great Britain, that "while freedom of choice as to places of study ought to be open to all, the Committee would think it inadmissible that British students, intending to practice in the United Kingdom, should have the option of undergoing in any other country than their own the examinations which are to test their fitness for practice;" therefore, applying the same principle to Ontario students as is applied by the General Medical Council of Great Britain to British students, the Council of the College of Physicians and Surgeons of Ontario consider it inadmissable that Ontario students, intending to practice in Ontario, should have the option of undergoing in any other country than their own the examinations which are to test their fitness for practice, and that the recognition of registration in the British Medical Register, shall not be held to exempt from the examinations established by the Council of the College of Physicians and Surgeons of Ontario any one who had begun his medical studies at any of the medical schools in Ontario, or who could have been properly considered as a resident in

Ontario before the commencement of his medical studies.

3. That all such students from Ontario as are referred to in the foregoing resolution, shall be required to pass at least the "final" examination of this Council, and shall pay the usual examination fees therefor.

4. That the President be authorized to request the Directors General of the Army and Navy Medical Department of Great Britain to recognize registration as a member of the College of Physicians and surgeons of Ontario as constituting a sufficient qualification for candidates to present themselves for examination as surgeons before their respective Medical Boards.

After some discussion it was decided to leave the matter over until the passing of the British Medical Act.

Dr. DANIEL CLARK moved, That no registration of persons alleging to have been practitioners before 1850 shall be permitted to take place until the credentials of such applicants have been examined by the Council or Executive Committee, and the sanction to register given by the same to the Registrar.

At one o'clock several of the members of the Council drove to the General Hospital, and were received by Dr. O'Reilly, the resident medical officer of the institution. His Worship the Mayor was also present. Dr. O'Reilly conducted the members through the various wards, and although time did not permit of a critical and minute examination being made, it was generally conceded by the professional gentlemen that the hospital was in a satisfactory condition. The wards were clean and well-ventilated, perfectly free from offensive effluvia, the bed linen and all the general appurtenances in excellent order, and really a credit to those who have the administration of the internal arrangements of the institution.

During the visit Dr. Aikins applied the galvanic cautery for the removal of a melanotic tumor, of a semi-malignant character from the region of the umbilicus.

The Council re-assembled at 3 o'clock.

The question as the admission of graduates from the Province of Quebec came up for discussion notably the case of Dr. Frecette, who sought to be admitted by passing the final examination of the Board in Ontario. It was decided to refuse the application of Dr. Frecette, unless he chooses to comply with the terms of the Ontario Medical Act.

Dr. GRANT then moved, seconced by Dr. McLAUGHLIN,

That it is the opinion of the members of the College of Physicians and Surgeons of Ontario that the matters pertaining to medical education should, as far as possible, be reduced to one uniform basis for the entire Dominion in order to simplify rules and regulations and set aside any Provincial jealousies which may exist, and thus make our profession a unit from the Atlantic to the Pacific; also that in consultations the greatest possible latitude should be extended to professional gentlemen of well recognized ability in the neighbouring Republic, thus exercising that known liberality which is in keeping with the progress and scientific advancement of the present time.

He moved the present resolution to place on record his conviction that the best interests of the medical profession would be subserved by the formation of a "Dominion Board," in order to simplify the work of the profession. The best interests of the profession are now clashing, and difficulties exist which by a greater degree of uniformity in medical matters might be very much benefited. The subject of sanitary science is now under the same difficulty—medical and sanitary matters are purely under the control of the Local Legislatures. The powers granted by the Dominion Act are not to be disturbed without serious consideration, yet he felt satisfied that if an expression of opinion emanated from the whole body of the profession an influence for good in the direction indicated might be exercised. No doubt some time must elapse prior to carrying into operation a central medical examining body and sanitary bureau at Ottawa. The interests of the various Provinces are the interests of the Dominion as well, and such measures should be advocated as will at the same time simplify and strengthen the operation of medical and sanitary legislation.

Dr. ALLISON objected to the terms of the resolution, as it involved too much of a free trade principle, and one he did not think would act in a satisfactory manner as applied to medicine.

After some discussion, Dr. AIKINS moved, seconded by Dr. BERRYMAN. "That the consideration of the resolution be deferred for six months."

Dr. CLARKE expressed his opinion that that was the best course to adopt.

Dr. BROUSE then pointed out the importance of establishing a Bureau of Health, and spoke of the efforts he had put forth in the House of Commons towards getting an appropriation for that object. He thought Dr. Grant deserved credit for bringing forward the resolution. The motion was lost.

Dr. ALLISON moved, seconded by Dr. McLAUGHLIN,

That with a view of lessening the expenses of the Council and the Executive Committee it is deemed expedient that not more than seven members of the Council do constitute said Committee.

Dr. EDWARDS moved in amendment, seconded by BETHUNE, that the Executive Committee consist of nine members, two of the nine to be *ex-officio* members. The amendment was carried.

Dr. AIKINS moved, seconded by Dr. BROUSE,

That Drs. Campbell, Allison, Daniel Clark, Wm. Clarke, Berryman, Macdonald, Aikins, Lavell and Geikie be members of the Executive Committee. Carried.

It was moved by Dr. BERRYMAN, seconded by Dr. BROUSE,

That the members of this Council having proceeded to the Toronto General Hospital, in accordance with an invitation of the House Surgeon, Dr. O'Reilly, would report by resolution—That they found the wards and all their appurtenances in most excellent and efficient order, the improved condition of ventilation being remarkable. While expressing our deepest sympathy and heartfelt interest in the general welfare of such a valuable institution, we, as a body corporate, would, by this resolution, beg to express our thanks on behalf of the profession to the donating Trustees and others who have so nobly assisted this institution, and further the efforts of those so kindly assisting have been so ably carried out by our present efficient resident officer, Dr. O'Reilly. This Council would at the same time earnestly press on the attention of the Ontario Government the necessity of their immediate or earliest assistance in such a noble work—by which an enactment as may to them seem best—for the relief of the poor, the sick, and distressed, thereby emulating the voluntary and handsome donations of private charity. Carried.

It was moved by Dr. Ross, seconded by Dr. CLARKE,

That in the opinion of this Council the time has now arrived when the General Hospitals now in operation in Ontario, and such as shall hereafter be established, should be placed upon a Governmental basis similar to that provided for our Insane Asylums, so as to give an assurance to the sick poor in our midst that their wants and applications are duly respected, and also to equally distribute the onus of their support over the whole community, and that we do earnestly recommend our professional brethren throughout the whole country to urge upon the individual legislators, and through them upon the Legislature, the absolute necessity which does exist for such provision being made. Carried.

FOURTH DAY'S PROCEEDINGS.

The session opened at 10 o'clock.

Dr. GRANT, on behalf of the Special Committee appointed to draft an address to Lord Dufferin, on the occasion of his departure from Canada, reported a form for adoption by the Council.

The address was adopted, and on motion ordered to be engrossed, and Drs. Grant and Brouse were appointed a deputation to present it to His Excellency.

Dr. Logan on behalf of the Special Committee in the case of Dr. Chaffey, recommended that he be allowed a special examination at any time before the Board of Examiners. Carried.

Dr. AIKINS moved: That the following be the Examining Board, Dr. Clarke, surgery and surgical pathology; Dr. Ross, midwifery; Dr. McLaughlin, anatomy; Dr. Morrison, chemistry; Dr. MacDonald, medicine; Dr. Berryman, materia medica; Dr. Edwards, physiology; Dr. Logan, medical jurisprudence. Carried.

Dr. CORNELL presented the report of the Printing Committee. It simply recommended the payment of sundry accounts, and was referred to the Committee on Finance.

Dr. HYDE presented a report of the Finance Committee. It stated that the Committee had found the Treasurer's book to correspond with the vouchers; and that a balance of $8,425 81 stood to the credit of the Council in the Canadian Bank of Commerce. The Committee was gratified to report that the Registrar had strictly complied with the instructions given for his guidance. He had collected on the assessment of registered practitioners only $281, and the committee recommended that active steps be taken to collect the arrears. Mr. Wood, of Kingston, the matriculant examiner, it was reported, was still in arrears to the extent of $225 97, and the Committee recommended that the matriculation fees should be hereafter paid to the Treasurer, and that the other accounts in connection with the examinations should be sent directly to him. Several accounts were recommended to be paid. "Dr. Campbell's accounts for preparing by-laws, register, annual announcement, &c., amounting to $282 50, we also submit for your consideration, as we can find nothing in the minutes of the Council, or the Executive Committee, or any President's order, authorizing him to do the work. We are of the opinion that the above is part of the duty of the Registrar."

The Council went into Committee on the report, and took up the different clauses *seriatim*.

On the clause regarding the collection of assessments, some discussion took place as to whether it was the duty of the Registrar or the Public Prosecutor to collect the money.

The item of Dr. Campbell's account, occasioned considerable discussion as it was alleged that the expenses were incurred without the authority of either the Council, Executive Committee, or the President's order.

Dr. W. CLARKE moved, seconded by Dr. D. CLARK, that the report of the Finance Committee be amended by the payment of $170 to Dr. Campbell in lieu of all claims by him against the Council, and this is paid as a testimony of the services rendered by him to this Council. Carried.

Dr. W. CLARKE moved that the Treasurer be authorized not to pay any money without the bills of the same having been presented to and passed at the annual meeting of the Council. Carried.

Dr. D. CLARK moved, seconded by Dr. MCLAUGHLIN, that no debts shall be contracted nor money spent on behalf of the Council without the consent of the Executive Committee, and that this Council will not hold itself responsible for any debts contracted without the consent of said Committee. Carried.

The report of the Education Committee was then submitted to the Council in Committee of the Whole, Dr. Macdonald in the chair. It was discussed clause by clause and adopted. It provided that the examinations should take place in Toronto and Kingston alternately in April and August—in Toronto in April and in Kingston in August. The remainder of the report was a mere matter of detail with reference to medical education generally, fixing the time of study to forty-eight months from the date of matriculation, this arrangement to come into effect after the 1st of April, 1879.

The Examiners appointed were;— Materia Medica and Sanitary Science, Dr. Berryman; Anatomy, Descriptive and Surgical, Dr. Sullivan; Medicine, Medical Pathology, and Medical Diagnosis, Dr. Kennedy; Midwifery and Diseases of Women and Children, Dr. Thorburn; Chemistry, Theoretical and Practical, Dr. Morrison; Surgery and Surgical Pathology, Dr. Malloch; Physiology, and Histology, Dr. Pickup; Medical Jurisprudence and Toxicology, Dr. Henderson; Homœopathic Examiner, Dr. Vernon.

Dr. BETHUNE presented the report of the Registration Committee, and the Council went into Committee of the Whole to consider it. The tariff of the St. Lawrence and Eastern Division was objected to by the Committee as being too high. Some of the items were read, and characterized by the Council as being excessive. The tariff was sent back to the Association. The report went on to recommend, that the name of the Rev. Jas. Edgar be not placed on the Register on the ground that the certificate testifying to his having practised before the year 1850, was not signed by the whole of the members of the Electic body.

A long discussion took place upon the matter, and it resulted in Dr. MCLAUGHLIN moving that Mr. Edgar's name be expunged from the Register.

Dr. W. CLARKE moved in amendment that the removal of Mr. Edgar's name from the Register be postponed until the law officer of the Council had been consulted. Carried.

The other items in the report were adopted.

Dr. CAMPBELL then addressed the Council *in re* the tariff, and moved the following resolution, which was seconded by Dr. LAVELL.

That every member of the College of Physicians and Surgeons of Ontario, if summoned to give professional evidence at any inquest, criminal trial, or investigation of a criminal nature, shall, upon the Coroner, Judge, Police Magistrate, Justice of the Peace, or other judicial officer presiding at such inquest, trial, or investigation, certifying that the evidence of such member was important, or likely to have been important, at such inquest, trial, or investigation, be entitled to charge the sum of five dollars for giving such professional evidence, together with five dollars for each day's, or part of a day's necessary attendance, or detention during the time such inquest, trial, or investigation was held, including among such days the time necessary for travelling from and to his usual place of residence, to and from the place where such inquest, trial, or investigation was held, and twenty-five cents for each mile of distance so travelled; and that a copy of this resolution be forwarded to the Chairman of every territorial division in Ontario, with instruction that every member of the College in their division be guided by this scale of fees.

The general impression was that the resolution was premature, and, on being put to the meeting, was lost.

It was moved by Dr. D. CLARKE, seconded by Dr. HENWOOD, "That all the new Register, except the list of names of medical men said to be registered, shall be sanctioned by the Council, but that the new Register shall not be published until this list has been revised and examined at the first meeting of the Executive Committee." Carried.

It was then moved by Dr. Ross, and seconded by Dr. HYDE, "That that portion of the resolution proposed by Dr. Morden and seconded by Dr. Edwards in June, 1876, and passed by this Council, which refers to the Public Prosecutor, directing that he should collect the annual dues, be cancelled, inasmuch as it is contrary to the intent and meaning of clause 27 of the Ontario Medical Act." Carried.

The report of the Finance Committee was then read and adopted. It recommended the payment of sundry accounts, but disallowed an item of $10 for cab hire for Dr. Campbell during the present session.

On motion, Drs. Berryman, Kennedy, Morrison and Thorburn were appointed to conduct the examination of the candidates who may present themselves, the Board appointed in the morning to be cancelled, the examination to take place in the City Hall, and to commence at ten o'clock a.m., to-morrow.

It was decided to take legal steps to defend the Council in the appeal brought against it by the electro-therapeutic practitioners.

The question of Dr. Campbell's claim again came up.

Dr. Wm. Clarke said that the sum of $170 was in full satisfaction of all claims against the Council.

Dr. Campbell declined to accept the $170 granted him. He had paid more than that out of his own pocket, and he considered that he should be paid his full account. He firmly declined to accept the money.

A vote of thanks was passed to the Senate of the University of Toronto, and Queen's College, Kingston, for the accommodation afforded the Council.

On motion of Dr. Berryman, seconded by Dr. Bethune, a vote of thanks was passed to the Mayor and Corporation for their kindness in allowing the Council the use of the City Hall for its meetings, and the President and Dr. Berryman were appointed a deputation to present the same at the next meeting of the City Council.

Dr. Aikins was again appointed Treasurer, and Dr. Pyne, Registrar, for the current year.

In regard to the salary of the Registrar it was mentioned that the amount was inadequate to the duty performed, and suggested that $1,000 be appropriated instead of $750.

The Registrar stated that on condition that an assistant be appointed to aid him during the Examinations he would desire his stipend to remain as heretofore.

After disposing of some routine business the Council adjourned *sine die.*

COUNTY OF BRANT MEDICAL ASSOCIATION.

A special meeting of the above Association was held in the Kerby House, Brantford, on Monday June 16th.

The members present were:—Dr. Philip (President), Burt, (Vice-President), Harris, (Secretary-Treasurer), Dickson, Dee, Digby, Marquis, Clarke, Henwood, Sinclair, Griffin, Corson, O'Reilly and Healy.

Dr. Griffin, moved, Dr. Clarke, seconded, that Dr. Dee be requested to prepare a paper for the next regular meeting; and that the consideration of Dr. Sinclair's paper be then taken up.—Carried.

Dr. Griffin moved, Dr. Marquis seconded, that the Brant Co. Medical Association are of the opinion that the establishment of a Provincial Medical Association for Ontario with City and Country branches, similar to the State and County Medical Associations in the United States, would be attended with many benefits to the profession and to the public, and express the hope that the initiatory action taken recently by the Erie and Niagara Divisional Association in the matter will lead to the establishment of such an Association. —Carried.

Dr. Griffin moved, Dr. Sinclair seconded,

That in the opinion of this Association "Contract Practice," except in so far as it relates to Government situations and Charitable Institutions, is not expedient in the interests either of the profession or the public.

It is therefore further resolved that the members of this Association will not hereafter engage in such practice except for such time as may be necessary to terminate any existing engagements.—Carried.

Dr. Dee moved, Dr. Healy seconded, that this resolution be published in the "CANADA LANCET" and "*Canadian Journal of Medical Science.*"—Carried.

The society then adjourned to meet at Brantford on the first Tuesday in September.

Books and Pamphlets.

REPORT OF VITAL STATISTICS OF THE STATE OF MICHIGAN FOR THE YEAR 1872, by H. B. Baker, M. D., Supt. of Vital Siatistics, Lansing, Mich.

HAND-BOOK OF OPHTHALMOLOGY, by Prof. C. Schweigger, University of Berlin—p.p. 546. Philadelphia: J. B. Lippincott & Co., 1878. Toronto: Willing & Williamson.

A COURSE OF ELEMENTARY PRACTICAL PHYSIOLOGY by M. Foster, M.D., F.R.S., Cambridge, assisted by J. N. Langley, B.A. Third Edition, pp. 260. London: McMillan & Co. Toronto: Willing & Williamson.

A COURSE OF PRACTICAL INSTRUCTION IN ELEMENTARY BIOLOGY, by T. H. Huxley, LL.D., assisted by H. N. Martin, B.A., M.B., Prof. of Biology in Johns Hopkins' University, Baltimore; third edition, revised, pp. 270. London and New York: McMillan & Co. Toronto: Willing & Williamson.

This is an admirable little work on the subject of Elementary Biology and will be found of great value to the student.

LECTURES ON CLINICAL MEDICINE, by Dr. McCall Anderson, Prof. of Clinical Medicine, University of Glasgow. London: McMillan & Co. Toronto: Willing & Williamson.

The author of this work has been long and favorably known in the ranks of medical literature, as an able writer and successful teacher. The book contains 18 lectures, and the various topics are discussed with freshness and originality, and also in a pleasing and interesting manner. It will repay a careful perusal.

A Text Book of Physiology, by M. Foster, M.A., M.D., F.R.S., Cambridge; with illustrations; second edition, revised and enlarged; 1878. London: McMillan & Co. Toronto: Willing & Williamson.

This work was favorably received from the first, and the present edition, issued so soon after the first, is evidence of increased and increasing favor. It is fully abreast of the most recent advances in this important subject. A large section of the work is devoted to the discussion of the contractile tissues and the vascular mechanism. Digestion and respiration are also treated of in a most exhaustive manner. Other subjects, such as blood, secretions, nervous and glandular systems, are not discussed as fully as the above mentioned, but they are all treated of in a thoroughly original and practical manner. The book is one which we can fully recommend as a work of reference for the student and practitioner.

The Source of Muscular Power. By Austin Flint, Jr. M. D., Prof. of Physiology in the Bellvue Hospital Medical College. New York: D. Appleton & Co. Toronto: Hart & Rawlinson.

The author in this little brochure of about 100 pages octavo, gives arguments and conclusions drawn from his own observations, and those of others, upon the human subject under conditions of rest and of muscular exercise. In the introductory chapter he combats the statement of Dr. Pavy in the Lancet for Nov. 25th 1876; "That food may be looked upon, not simply as so much ponderable matter, but as matter holding locked-up force, and that by the play of changes occurring in the body the force becomes liberated, and is manifested as muscular action, nervous action, assimilation, secretory or nutritive action, etc." He then treats of the nutrition and development of muscular tissue, and its relation to the elimination of nitrogen. He gives the experiments of Liebig, Lehman, Fick and Wislicenus, and Parkes; also the experiments of Dr. Pavy and himself on Weston the pedestrian, during his feats of walking, and concludes that food is not directly converted into force in the living body, nor is it a source of muscular power, except that it maintains the muscular system in a proper condition for it.

How we Raised our Baby: By a Benedict.

This is a most interesting and instructive book. In the form of a novel it gives in a most attractive style, important and valuable rules and suggestions for the care of infants. It bears internal evidence of having been written by a medical man, and many if not all the statements contained in it, will be fully endorsed by the medical profession in Canada. It is cleverly written and cannot fail to interest, amuse and instruct. The busy bodies and old nurses "whose only recommendation is that they have raised a large family of children themselves," come in for a fair share of attention. The author's idea is, to educate women for nurses, pay them living wages, and hold them responsible. Every mother should read this book, and every father too, as on the thread of the story is strung a large amount of useful and practical information, not only what to do but how to do it.

American Edition of Farquharson's Guide to Therapeutics. New York: H. C. Lea. Toronto: Willing & Williamson.

We have much pleasure in introducing to the profession a very useful and compendious little work entitled a "Guide to Therapeutics and Materia Medica, by Dr. Robert Farquharson, lecturer on Materia Medica at St. Mary's Hospital: The volume, although small in bulk—which by the way we consider a great recommendation both to the busy practitioner and student—treats on the general actions, therapeutical and physiological of medicinal agents. By a convenient arrangement, the corresponding effects in health and disease of each drug are represented in parallel columns, thus rendering reference easier, and impressing facts strongly on the minds of the reader. The first chapters devoted to rules for prescribing combination of drugs, form of administration, proper time for exhibition, dosage, intervals between doses, individual peculiarities, idiosyncrasy, constitutional or toxic effect from small doses, chemical and physiological incompatibilities, prescribing for children, prescription writing, weights and measures, observations upon doses, general rules for doses. As before remarked the balancing of the therapeutic action with the physiological is arranged by corresponding columns in diagraminatic form, having regard to external action, influence on the brain and spinal and sympathetic system of nerves, on the heart and blood vessels, on respiration and temperature, on alterations of secretion in the order, urinary, intestinal, salivary and cutaneous. The various modes of elimination from body, antidotes, contra-indication, best modes of prescribing, and illustrated prescriptions. Dr. Farquharson says on the subject of balancing the physiological against the therapeutic action of a drug, that it cannot always be accurately done either from want of sufficient knowledge or from an excess of facts more or less of a conflicting nature. "We must remember that our therapeutical evidence is derived from clinical observation on man, and that experi-

ments on the lower animals has supplied us with most of our knowledge respecting the action of medical agents on the healthy organism. Fallacies may readily creep into both these methods of investigation, and it is evident how the clinical method may be hampered by our want of full knowledge of the natural history of disease." Dr. Farquharson shows the objects in view in prescribing, in the combination of medicines, and points out the faults which frequently occur. The work contains a large collection of prescriptions appropriately arranged according to effect. We have derived much pleasure from a perusal of this work, and would strongly recommend it to practitioners and students.

WYETH'S DIALYSED IRON, BY LUNSFORD P. YANDELL, M.D. Professor of Therapeutics and Clinical Medicine in the University of Louisville.

"A year since, when Dialysed Iron was a novelty, I commended it in the *News*, as a most valuable addition to the Materi Medica. Twelve months of additional experience have confirmed my faith in its excellence. The object of this note is to call attention to the great variety of *spurious* preparations sold under the name of Dialysed Iron. Some of these were manufactured here, but most of them were made elsewhere. Genuine Dialysed Iron is nearly tasteless. It has the faintest possible saline flavor and a mere suspicion of roughness. Slightly diluted, its taste recalls that of fresh blood. It is not in the least unpleasant, and does not blacken the teeth or tongue. It seldom or never produces any gastric disturbance or headache, and very rarely constipation. It is exceedingly reliable and rapid as a tonic.

"The *spurious* forms of this drug are without the characteristics of taste and efficacy above enumerated, and chemical analysis readily detects their deficiencies. One of the spurious specimens before alluded to, was little less unpleasant than the Tincture of Muriate of Iron, another was excessively acid, another was decidedly saline, another was exceedingly astringent, another was sweetish, another was bitter, and another was seemingly only colored water; another more nearly approached correctness, but only a single specimen possessed the peculiarities of the true article.

"My attention was first directed to this matter through the failure or misbehavior of the Dialysed Iron in practice. It is but just to say that the good specimen is from Wyeth & Brother, the original manufacturers of this medicine in America. Wyeth's Dialysed Iron sells at about a dollar a pound. Other makers may be bought at fifty cents."

TRAUMATIC HERNIA OF THE LUGNG; LIGATURE AND EXCISION; RECOVERY.—A man, aged 24, received a stab wound in the ninth intercostal space (left), penetrating the pleural cavity, with slow and small pulse. No vesicular respiration at the base of spiration and coughing did not affect its volume nor form. Ligature applied and tumor cut off. The wound healed in 28 days. Seven months later there was no trace of the lesion beyound the cicatrix in the skin. M. Cauvy, who reported the case, considers this accident a fortunte complication of penetrating wounds of the thorax. It prevents bleeding and the entrance of air, and transforms a penetrating into a non-penetrating wound. Fatal consequences have followed the reduction of the lung. Ligature and excision effect a more prompt cure than an expectant method of treatment.—*Gaz. Hebd.*, 1878, No. 8.—*N. Y. Med. Journal.*

NEW REMEDY.—It seems as though Australia is to give us another valuable medicine besides that derived from the Eucalyptus tree. The leaves of the so-called cork wood (*Duboisia myoporoides*) yield a powerful extract similar in its action to atropine and belladonna, but more speedy and energetic. In New South Wales and Queensland where these properties have recently been developed by experimentation upon animals, the new drug is already considerably used in place of atropine.

BLACK LIST.—'Black list' is proposed to be prepared by the physicians of Toronto & Hamilton to protect them from that class of persons who, though able to pay, go about from one to another getting the services of each as long as possible without paying. It is proposed to report the names of such people, by printed lists and a copy will be supplied to each physician, for mutual protection.

REMEDY FOR SEA-SICKNESS.—A new remedy is said to have been discovered for sea-sickness, viz., apomorphia, a very small dose of which taken once an hour in water will remove the qualms. It is also said to be useful for beasts, the suffering of which are often extreme.

SPECIAL EXAMINATION, COLLEGE OF PPYSICIANS AND SUREGONS, ONTARIO.—The following gentlemen passed before the special examiners appointed by the council at its late meeting, viz.: Drs. Comford, Ryerson, Nevitt & Bomberry.

APPOINTMENTS.—Dr. F. G. Slack, M.D., has been appointed Prof. of Surgery, and Dr. Armstrong Lecturer on Anatomy, in Bishops College medical School, Montreal.

Births, Marriages, Deaths.

At Harriston, on the 6th of June, the wife of S. M. Henry, M.D., of a son.

In Toronto, on the —— of June, the wife of E. J. Barrick, M.D. ,of a son.

THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

VOL. X. TORONTO, AUG. 1ST, 1878. NO. 12.

Original Communications.

CASES OF FEVER RANGING BETWEEN BILIOUS AND TYPHOID FEVER.*

BY ALEX. BETHUNE, M.D., WINGHAM, ONT.

GENTLEMEN :—At the meeting of this Association, which was held in Clinton, in July last, I was appointed to read a paper at the next meeting, but business prevented me from attending, and therefore I have now to read the paper which I should have then read. Those who attended that meeting will no doubt remember that one of our members, Dr. Holmes, introduced the matter, to which this paper more immediately refers, and a discussion arose as to the nature and type of several cases, of which he gave a short history, as to whether they came strictly under the head of Typhoid Fever, or not, and as the time at our disposal was too short, to discuss these cases thoroughly, it was thought better to postpone it until our next meeting, and this, gentlemen is the origin of the present paper.

From these few preliminary remarks you may infer that I do not intend to enter fully into the history of Typhoid fever, or to dilate on it, in all its various forms, for that would take up too much time, and instead of furnishing matter for one paper it would form the contents of many papers; therefore I only propose to consider a few such cases as my friend Dr. Holmes referred to, and in doing so I proceed to give a very brief synopsis of these cases which I attended during the past year, as I think they were almost similar to those spoken of by Dr. Holmes.

Case 1. On the 24th of July 1877, I was called to visit D. S. æt. 26. On enquiring into the history of the case I was told that he had been ill about ten days, that he had received a severe wetting while working in the hay-field, and shortly after was taken with chills, pain in the head, back and legs. When I saw him he had a high fever, tongue swollen, red, dry and crusted, bowels constipated, pulse 90, and temperature 102½; there was also pain in the right iliac region, with slight tympanites. I gave him a purgative of pul. Jalapa hydrg. submur. and podophylli, and left him a solution of potass. bromid. grs. xi. to the dose, to be taken every four hours, and sulph. quinine in good doses, to be taken at any time if there should be any remission of the fever. Next day I found that the purgative had acted twice, but not as well as I would have expected; the stools were of a brownish green color, and very offensive, pulse 90, temperature 102, and all the other symptoms nearly the same as on the previous day. He complained greatly of a severe pain in the head, and sleeplessness. I ordered the mixture to be continued, and gave sulphite of magnesia in 15 grain doses alternately with the solution. As the fever did not remit, no quinine was given. After that I saw him daily, and observed very little change in the symptoms until the 3rd of August, when the pain in the bowels increased and there was also difficulty in passing urine. I then administered a dose of castor oil and laudanum which acted freely and brought away a large quantity of fæcal matter mixed with blood; after that he began to improve slowly, and on the 12th of August he was able to sit up a little, but still continued weak for a length of time. During the whole course of the fever the pulse never exceeded 100, nor the temperature 102½, and there was really nothing to be alarmed at, although there was great weakness and prostration.

Case 2. E. R., æt. 10. Lived in the next house to the preceding case. Was called to see him on the 3rd of August, he had been complaining for two or three days; was taken with chills, vomiting, pain in the head and back, etc. When I saw him he had a high fever, tongue soft, red at the edges and white in the centre, pain in the bowels, constipation, with slight tympanitis, pulse 110, and temperature 102. This case continued to exhibit the same symptoms, with very little variation, until the 14th, when an eruption of small reddish spots broke out over the bowels and chest, there was also slight delirium, worse at night, with diarrhœa and bloody discharges, which continued for two or three days and then gradually subsided, under treatment.

* A paper read before the County of Huron Medical Association at Wingham, January 1878.

As the remissions of the fever, in this case were more distinct, I gave him quinine in large doses while the fever was off, so that he generally took about ten grains during the remissions, which lasted about four hours; otherwise the treatment consisted of salycilic acid in a solution of liq. ammon. acetatis. alternately with sulphite of magnesia, every four hours. For a week, or so, after the appearance of the petechie there was very little change in the symptoms, and then the remissions became longer and the fever left entirely about the 6th of September, about five weeks from the inception of the disease.

Case 3. Mrs. K., æt 36, was attacked on the 4th of August with nausea, headache, pain in the back and limbs, etc., but thought that it was only a chill and would wear off; however as she continued to get worse I was sent for on the 13th, and found her in a high fever, pulse 95, temperature 101, tongue dry brown and crusted, great pain in the stomach and bowels, there was also severe pain in the head above the eyes, and great prostration. She had taken two or three doses of pills, but they had not operated, and the bowels had not been moved for five or six days. I immediately administered a purgative of pulv. jalap hydrg-cum creta and podophyllin, which acted freely, although vomiting took place in an hour or so after taking the powder, and a great deal of brown scybalous mattter came away. In this case the stomach was very irritable and there was a good deal of pain in the bowels, although there was very little tympanitis. I ordered sinapisms to the pit of the stomach, and bowels, and prescribed bismuth every four hours, with salicylic acid and liquid amm. acetatis between times. There was little or no change in the symptoms until the 30th when she had a severe choking paroxysm, and vomited a worm about nine inches long, which was followed by a great deal of irritation of the throat and pain in the stomach: next day she had a severe attack of diarrhœa, the motions being very frequent and bloody; at this time there was also wandering delirium and great prostration. The diarrhœa was soon checked with pulv. opii. and plumbi acetatis; about this time also a small miliary eruption appeared and continued for nearly a week, after which the patient began slowly to recover, and the convalescence was very tedious, with slight relapses, which seemed to be caused by certain changes of diet, such as eating a little boiled cabbage, or part of an apple, &c. However she eventually made a good recovery, although not entirely well until the 20th of October, nine weeks after the commencement of the disease. Since then she informed me that she had no recollection of anything that passed during two or three weeks of the fever, and that her hair has nearly all fallen out. This case was the most severe of the three, chiefly because the patient was worn out with bodily fatigue, and very weak before the disease came on. After this very brief synopsis which I have made, as our time is short, and there are other cases to come before our Association, I now proceed to consider the nature, cause, and treatment of these cases. Strictly speaking they might be called typhoid fever, as most of the symptoms were such as are usually present in that disease, although not in its severest form. Such fevers often assume various forms, and are called by different names, which after all have nearly the same meaning, such as enteric fever, gastric fever, gastro-enteric, typhus and continued fever. Some writers prefer one name and some another, but I am inclined to agree with Watson, when he says, "There is no line of genuine distinction between continued fevers that can be relied on. They run insensibly into each other, even the most dissimilar of them; and are often traceable to the same contagion." You, no doubt, have frequently met with cases which began as intermittent, or bilious fever and ultimately terminated in typhoid fever, so that the one "insensibly" ran into the other, and therefore, I think, continued fever is the most appropriate term for such disease. As to the cause of such fevers, and more particularly of the preceding cases. The houses in which the first two cases occurred were situated near the river, close by the flats where there was a great deal of rotten wild grass, which previously had been covered with water, and as the water subsided there naturally arose an exhalation of decaying vegetable matter, caused by the heat and moisture, which according to the doctrine of contagium vivum views, now generally accepted by the profession, had no doubt much to do with producing the disease in these cases. Most writers on fever, agree in attributing the exciting cause of fevers to noxious exhalations arising from certain soils, and that a combination of heat and moisture is also necessary for their production.

Lancisi gives the history of an epidemic fever,

which for several summers infested and almost depopulated a town situated in an elevated and salubrious part of Etruria. This fever arose from the emanations from ponds of stagnant waters, in which hemp and flax were macerated: On this process being afterwards prohibited there was no recurrence of fever. Dr. Bancroft states he was informed at Naples that in several places near the city, and particularly in some beyond the Grotto of Poslippo, sleeping in houses contiguous to ditches in which hemp or flax were macerating had been almost constantly followed by fever. Similar effects have been observed from the fermentation which the indigo plant undergoes in the process of extracting the colouring matter. It appears that after the extraction of the dye, large heaps of the plant are formed near the manufactories and houses of the workmen for the purpose of undergoing decomposition so as to form manure. After being frequently moistened by the heavy rains, and heated by the rays of a scorching sun, copious exhalations take place from the beds of putrifying vegetable matter in consequence of which the workmen, and persons who live near were constantly attacked with dangerous fevers. This circumstance having of late years attracted the notice of the planters, the plant after the extraction of the dye, is not permitted to be formed in heaps near the works, or dwellings of the labourers. Fevers consequently are now comparatively rare among the workmen. Therefore in the two first cases I think the chief cause was the miasmata arising from the decayed grass, which, as the water dried up, began to putrify, permeating all the dwellings in the neighbourhood, and although all were not affected alike, yet I had several cases in the same neighbourhood which shewed all the premonitory symptoms of the fever. In the first case there was also a want of cleanliness and ventilation which would tend to accelerate the disease. In the second case five of a family lived and slept in one apartment about 20 by 16 and although it was kept as clean as possible, under the circumstances, yet the ventilation was necessarily very imperfect. With regard to the third case; the patient was previously in a weak state of health for some time, and there was a certain amount of dampness and want of proper ventilation in the apartment in which she was constantly employed during the day, and also on account of the bowels not acting properly for a length of time, the system was more liable to be attacked with the fever which ensued. The treatment I pursued in all these cases was chiefly expectant and consisted in keeping up the strength by proper nourishment, watching the complications which usually accompany or follow such diseases. I generally gave bismuth when the stomach was irritable. Bromide of potass or sulphite of magnesia alternately with salycilic acid in a solution of liq. ammonia acetatis, and when diarrhœa supervened, I gave pulv. opii and plumbi acetatis. When the fever began to abate I stopped the bromide of potass, or sulphite of magnesia and gave nitromuriatic acid and quin. with nutritious diet and a little wine or brandy according to the taste of the patient. There is no doubt that the state of the bowels requires to be carefully watched in these cases, and as those I have recorded were all troubled with constipation at the first, and during a great part of the disease, I began the treatment by administering a purgative consisting of jalap and rhubarb with a little hydrg. sub. mur. or hydrarg. c. creta. Afterwards during the course of the fever I generally gave castor oil with a few drops of laudanum, which I found to act very satisfactorily. There is considerable difference of opinion, among medical men, with regard to the use of purgatives in typhoid fever, some advocating the free use of purgatives, and others the administering of astringents. Most of you, no doubt, have read the interesting paper "On the management of the Bowels in Enteric Fever" by Dr. Grisham of Dublin, which has been copied into several of our Canadian medical journals, and I cannot refrain from quoting the closing paragraph, in which he says "I believe the main point to be attended to in the management of the bowels in enteric fever is to keep them free, but not too free, and to avoid as much as possible purgatives or astringents.

There is one point which has created a good deal of discussion, and which I shall refer to very briefly, that is the question of contagion. Dr. Budd holds that it is strictly contagious, and gives this as one of the proofs of its being a specific fever. Dr. Murchison believes that it is not contagious in the strict sense of the term, and that it is never propagated by a third person. Some again adduce the appearance of an eruption as an evidence of its contagion, but we all know that petechiæ do not appear in every case. In the cases mentioned here there was only one in which the spots were distinct, and although an eruption showed itself in the third case

about the crisis of the fever, still such an eruption might be caused by the opium that was given to check the diarrahœa. I do not think that you will find petechiæ in more than one-half, or two-thirds at the farthest, in all the cases of typhoid fever that occur in this country. Therefore the opinion I have formed, from my own experience is, that typhoid fever to a certain extent is contagious, yet the contagion is not of that virulent type which is observed in many specific fevers. Yet it is certainly advisable to treat it as if it were strictly contagious, by paying great attention to cleanliness and ventilation, as well as the free use of disinfectants.

CASE OF TALIPES IN A BOY OF 16 YEARS OF AGE, WITH SUCCESSFUL OPERATION AND TREATMENT BY PLASTER CASTS.

BY DR. BURROWS OF LINDSAY.

John King, having Talipes Varus of left foot with all its well marked characteristics, applied to me some months ago for the relief of his deformity. He had only been able sadly to hobble about by the use of a crutch and cane, the foot was greatly misshaped, malleoli enlarged, with skin and flesh covering much thickened and callosed, from walking on that part of the foot. By advice of medical men of more or less celebriety, a number of whom he had previously consulted, almost every conceivable appliance and apparatus had been used but without any appreciable good result.

The boy, anxious for prospective relief was easily pursuaded to an operation, which I performed on the 23rd of May last, assisted by Dr. T. W. Poole, who kindly administered the anæsthetic, using a fine Tenotomy knife, the contracted tendons were divided, also the plantar fascia and muscles which were carefully divided, cautiously avoiding the nerves and arteries in the neighborhood, the operation progressed without serious hemorrhage or any troublesome complication, and having been satisfactorily completed the limb was fairly straightened and set in an improvised splint of leather, and perfect rest insisted upon.

On visiting him the following day, found that he had rested nicely, very little soreness or pain being complained of, the foot keeping its position. I now reapplied strips of adhesive plaster with tension of foot inwards, and to the outside applied a moulded splint of stout leather, allowing all to remain in situ a few days. I now procured a stout pasteboard box and having satisfied myself as to the position of the foot and exerting increased traction by the adhesive strips, I placed against the sole of the foot a moulded splint well wadded with cotton wool with a view to prevent undue pressure from the contraction of the plaster in setting, and to secure greater comfort to the limb in its lengthy incarceration. The foot being placed on its inner side with box, the plaster of Paris in water, to which a small quantity of common salt had been added to accelerate its setting, and make it more firm, giving a complete casing of about an inch thickness, and which trimmed a little, left a close fitting comely covering of solid plaster, securely fixing the foot and thoroughly insuring its remaining in the desired position. On my following visit I found him to have slept well, eaten well, and the foot feeling quite comfortable. Everything appearing so favorably, I left the foot again in the same position for some eight or ten days, at the end of this time, a portion of the plaster cast being removed from the outer side to below the ankle joint, I pressed the foot still further outwards, even beyond its natural position, and having poured fresh plaster around it secured it in its new position, and left my patient again fairly comfortable. In this position I left my patient until the 22nd of June, when I entirely removed the plaster casing, finding the limb perfectly straight and of natural shape, almost as its fellow, the previously enlarged malleoli and callosities less noticably prominent. I had him now put on a laced boot specially stiffened on the inner side with a double thickness of stove pipe iron, moulded to the last on which the boot was made, and concealed between the side leathers. He at once endeavoured to walk and could do so, resting part of his weight on the previously affected foot. He complained however, of a stiffness in the joint, and a feeling of weakness, but with a walking stick alone could make fair locomotion. He has, at the time of my writing, donated that last relic of his deformity, and is able to walk nearly as well as anybody; the foot has assumed an almost natural shape and position, and the joint is gradually becoming of normal size and greatly strengthening.

I have thought this worthy of insertion.

ON PARESIS.

Read before the Toronto Medical Association

BY J. WORKMAN, M.D., PRESIDENT.

MR. VICE-PRESIDENT AND GENTLEMEN,—You will not have forgotten that at the close of our last meeting, when no response was made to the question from the chair, as to notice of papers for next meeting, I ventured to intimate, that as no other member seemed disposed to favour us with a contribution, I would myself endeavour to meet the requirement, by submitting a few observations on a peculiar form of cerebral disease, which I have long regarded as deserving of the serious consideration of our entire profession; for, unquestionably, whether regarded in relation to its *now* universally acknowledged fatality, to its morbid physical and mental accompaniments, or to the previous social status, and intellectual energy of no small proportion of its victims, it may well command, not only the studious observance of every intelligent medical practitioner, but also the humble reflection of every member of society.

Before, however, entering further on my subject, permit me to crave your kind indulgence towards those defects which I am convinced will be but too manifest to those of your numbers who have devoted much attention to the general subject of morbid psychology and its associate pathological conditions. My timidity in this relation is certainly not moderated by the gratification derived by me from the hearing of the excellent papers which have already been submitted to our society, characterised as they were by careful reflection and close reasoning. I assure you, gentlemen, that these contributions, supplemented as they have been, by the exhibition of instructive pathological specimens, placed before us by zealous workers, and by the free and valuable discussions which ensued, have been regarded by me, as I doubt not they have been by all, as favourable auguries of the future progress of our organization; and I would fondly trust that the good example given by our early benefactors, will not fail to act as a cogent stimulus on our entire membership. Let us hope that the little leaven will work its way through the whole lump, and that before our first year shall have passed, we shall be able to congratulate ourselves on a "*good rising*," rather than be compelled to weep over sodden dough. The peculiar disease to which I now venture to invite your consideration, may truly be said to be one of only modern recognition, though it might be erroneous to suppose that its existence dates not far anterior to the period at which its characteristic mental and somatic phenomena first attracted discriminate observance. I believe the first French writer on insanity who distinctively treated of it, not yet half a century ago, was Esquirol; and the first English author who, reproducing Esquirol's description, introduced it to the notice of our countrymen, was Dr. Pritchard, whose excellent treatise on insanity was published about 42 years ago. The designation first given to the disease was that of "General Paralysis," a name which to my certain knowledge, has, in this country, and I doubt not, elsewhere, led to very numerous mistakes, or misapprehensions. The term *Paralysis* as generally understood in medicine, signifies either a total deprivation of muscular power, or of sensory function, or of both; or at least a very great diminution of these vital conditions. Now, unfortunately for accurate easy diagnosis of the disease in question, it so happens, that in the formative stage, when alone, exactitude might be of practical value, so far from any palpable deterioration of muscular energy, or of sensory integrity, being *palpable* to the inexperienced observer, the very contrary is almost invariably the fact. The budding subject of our so called *general Paralysis* is the very antithesis of a paralytic. He is all life, all energy, all self-assurance, all speculativeness, all fearlessness, and all hopefulness. He feels stronger, more healthful, more youthful, than he ever before felt. Day by day he asserts all this, and, (not strange to say), his family and friends, and not seldom his medical adviser, share in the delusion. Dozens of such athletes have been sent to me, ticketed as most promising cases, and I doubt not such still continue to be sent to my successor, and to all his confreres.

Now, the disease under consideration is not one of obscure diagnosis, even in its earliest stage. It therefore appears to me very undesirable, that it should be designated by a name which is so well calculated to lead those who are unfamiliar with its conventional acceptation in the specialty of insanity, into error. This difficulty has, to a certain extent been obviated by adoption of the enlarged term, "general Paralysis of the Insane," but for

the following reasons this designation is still objectionable—1st, because often up to almost the close of life, the patient is not paralytic—2nd, his so called Paralysis is not *general*, unless by this term we understand indefinite, not special, not topical, not constant, or unvarying. Some walk about briskly, work well and willingly, up to a few hours before their final exit, which occasionally is precipitated by an apoplectiform seizure, with copious sanguineous, or perhaps only serous, effusion on the surface or into the ventricles of the brain.

In Germany and America the term *Paresis* has now been preferentially substituted. Some writers still retain the adjunct "*general*," but I can see no good reason for this qualification—the word *Paresis* —implying as it does, not an absolute, or total, deprivation of motor power, nor even a great diminution of it, but a gradual weakening and impairment, seems to me to come as near to the requirement as we could wish. I have, therefore, for many years, used this designation; and if it had no other recommendation than that of arbitrary removal of the disease from general medical nosology, into the domain of alienism, I think it is entitled to the approval of the entire medical profession.

I have said that the disease "is not one of obscure diagnosis, even in its earliest stages," but perhaps I have here spoken rashly; for who can say *when* insanity of any form, *begins?* Do we not every day meet with men and women, who, though not palpably insane, and duly qualified for asylum lodgment, are, nevertheless very *over*, or *under* active members of society, or very perplexing members of their domestic circles? A large majority of these may float on through life without the stigma of lunacy having disfigured their fair repute, yet I have lived long enough to realize, inside the walls of an insane asylum, adequate explanation of many a moral paradox which I had witnessed long before, outside.

And just so is it with, as I believe, the majority of all paretics—not, first, is it, when a man breaks out into a sudden outburst of insane passion, or violence, or exhibits some gross moral impropriety, which astounds his relatives and friends, that his mind has *begun* to be unsound—enquiry will hardly ever fail to elicit from those who have long and intimately known him, that for many months, or years, before the formidable outbreak,—if not indeed for all his past life,—they had noted in his demeanour, or conversation, unaccountable peculiarities, but until now, they had never suspected the presence of mental unsoundness.

Who would venture to say how large, or how small, may be the proportion of all bold projectors and daring speculators,—successful or unsuccessful —who have been exempt from morbid cerebral taint? Neither the abundance, nor the fineness, of our treasure, renders infrangible the "earthen vessels" in which we hold it; too often, indeed, the very opposite is the fact. But nothing in this world is so successful, as success; and no wisdom is in the eyes of the multitude so wise as that which has enthroned itself on the gold-sack.

It may not be the invariable fact, but it will be found of frequent obtainance, that paretics have been men of unusual mental force and grasp. Some of them may have made achievements that have astonished their quiet, cautious, neighbours; but this astonishment has finally been eclipsed by one far stranger, and far sadder. I feel sure that there is not one who now hears me, (but more especially not one of maturer years), who has not witnessed mental dethronements of the sad character here alluded to.

Paresis has either immensely increased during the last half century, or before this period it must have been very defectively noted—both facts may be terrible. Before the time of Pritchard, it was virtually unknown, or it was unwittingly ignored, in England. To day its existence there and though to a less extent, in Scotland and Ireland, is fearful.

When I entered the Toronto Asylum in 1853, there was not a single case, as far as I could judge, in the institution, but it was not long before it began to make appearance. I have not at present at my command, the figures showing the mortality during my whole period of service; but I can state that in my last 10½ years from 1st Jan. 1865 to 19th July 1875, the deaths from Paresis amounted to 72, of those 65 were of men, and only 7 of women. I believe this is very near the proportion as to sex, which obtains in those asylums of the United States with one exception in which Paresis is most largely found, or is most accurately diagnosed. In the 2½ years from 19th July, 1875, to 1st Jan. 1878, the deaths from Paresis in the Toronto

Asylum have been 23, including that of only one woman.

It is a melancholy confession, but it is the truth, that the asylum death records of Paresis, have been a pretty nearly correct statement of the number of cases of this disease admitted—a few, indeed, of these patients were taken out by their friends, before death; but not a single one escaped the destroyer—I believe the total deaths from Paresis in my time, was about 120.

The two latest English reports which I have received, (from Sheffield and Exeter,) show the following figures for deaths of Paretics, in 1877.

Sheffield—28 men, 6 women, total, 34, in a total of 105 deaths, or nearly one-third. Devon, (Exeter), 10 men, 2 women, total 12, in a total of 50 deaths, nearly ¼.

The total numbers resident in the year in the Sheffield Asylum were 361 men and 463 women, therefore the actual paretic death proportion of the sexes was not as 28 : 6, but as 28 to 4 $\frac{7}{10}$, or about 6 to 1.

In the Devon Asylum, the total resident were 285 men, and 462 women, therefore the actual paretic death proportion was not as 10 : 2, but nearly as 10 to 1¼, or 8 to 1.

The figures of the Sheffield Asylum representing as they do, the incidence of Paresis in a large manufacturing town, may be taken as an approximate representation of the frequency of the disease in other large English towns; whilst those of the Devon Asylum are perhaps, fair exponents of its prevalence in mixed town and country populations.

In Scotland, with the exception of the city of Glasgow, the proportion of Paretics is not much greater than it is in this country; and in Ireland it is apparently less.

(To be Continued.)

TRANSLATIONS FROM FOREIGN JOURNALS.

Editorial of *Le Progress Medical*, 8th of June.

DR. BOURNEVILLE, PARIS.

There are yet to be found men who in spite of the march of ideas, cannot accustom themselves to the thought, that the elected representatives of the population of a great city should have the power to bring about reform. Elected in a manner, more or less singular, and after a system which falls into desuetude, because it rests on oligarchy, these worthy people who have no influence on public opinion, take it into their heads that they have an aptitude for dealing with questions beyond their ability, and which they have only examined cursorily by the sole light of their prejudices, accomplices of their ignorant self-sufficiency. However hard, however severe may appear at first sight this judgment, it will be perceived by the following quotations that it is fully warranted. In the second page of this report, M. Pran de Saint Gilles, Notary, gives involuntary reason to these Municipal Councillors, sufficiently revolutionary, to demand a partial application of the lay element in nursing. The following are his own words: "*That special hospitals, founded and sustained by free associations, hold to the preserving the Catholic, Protestant, or Jewish character of their foundation, nothing can be more just, the public nursing is and ought to remain lay, open to all without distinction of creed, its mission is to cure, and not to convert.*"

Such premises would naturally lead a logical mind to recognize that the desire expressed by the Municipal Council, a very natural desire, since it limited itself to requesting the Board of Guardians to place lay trained nurses and novitiates in a new hospital, and ought to have been taken into consideration. Well, the author of the preceding extract has arrived at a conclusion in a radically opposite sense. This seems all the more strange that he confesses that certain criticisms pointing to nuns, are, alas! but too true.

"It is objected that nuns are on certain days absorbed by exercises of religion at the expense of their hospital duties, of neglecting the wards of the patients, for the chapel of their community. It is true that their rules exact the accomplishment of religious duties, which necessitate at times their absence from the wards. It is true also, that some medical officers have been able to establish these absences, and to regret them under circumstances when it would have been preferable that they should have sacrificed religious duties to the exigencies of an acute disease, or to an urgent dressing."

Precious acknowledgments, that the journals which have undertaken the defence of the nun:

have taken care not to record. The division of time of the sisters of charity in one of the hospitals of Paris, and in one of the insane asylums of the Seine, published in the Progress Medical, and which nobody can deny, shows how great is the time allotted to religious exercises prescribed by the rules of the community. The reasons invoked by M. Pean de Saint Gilles, to prevent the Board from acceeding to the prayer of the Municipal Council, deserve to be made known, not because they are of an incontestable accuracy but because they are altogether original.

"It is certain that you never see sisters of charity betray their vows of chastity, of renouncing the world and of self sacrifice. With them you have no occasion to fear the dangers of human frailty, which it is unnecessary to particularize."

M. Pean de Saint Gilles, in his position of member of the Council of Superintendence, should have informed himself from the records of the Board, before committing himself so imprudently.

What would he have learned? That a year does not pass without some lost sheep escaping from the fold. More, he would have learned, that occasionally unheard of acts of scandal occur, that last year for instance, a sister was surprised sacrificing with her friend to the Lesbian Venus, and driven from the hospital. What then can we think of M. Pean de Saint Gilles, if having carefully obtained information, he has nevertheless persisted in writing the passages we have extracted. M. de St. Gilles, moreover, endeavors to prove that the Sisters have been calumniated in attributing to them an excessive ardor for proselytising. Perverse are those who doubt that the Sisters beset and worry the patients, to attract or draw them back to forms and practises that they believe necessary to their salvation. How many facts could we cite here, showing the procedures of the Sisters in order to force the patients to mass, to the confessional, and to all that follows. There are but few of our readers who are not in possession of similar facts. M. P. de St. Gilles, for combatting the idea of admitting the lay element into hospitals, relies upon a fact, which, according to him has recently happened in Switzerand.

"A member of our commission remarks upon a very characteristic fact, Berne, a Protestant City, has recently asked the Board of administration of the Hospital of Lyons, to procure for them Sisters of Charity, for the service of its chief hospital. Unfortunately M. de St. Gilles, does not give us the name of his so well informed colleague. M. de St. Gilles, has been deceived, we have enquired, and by a letter from a most distinguished physician we learn, that nothing of the kind has ever taken place as deposed by the Secretary of the hospital in question, moreover that none of the hospitals in Berne neither large nor small are served by the Sisters. The Catholic population of the Jura, has different hospitals served by the Sisters, but in one of them after a conflict between the Board and the Sisters, a proportion of the latter were replaced by Protestants."

CURE OF A CASE OF POISONING FROM 36 GRS. OF STRYCHNINE, AFTER FIVE HOURS DETENTION IN THE STOMACH.

Translated from the "*Revista Medica-Quirurgica*," Buenos Aires, 8th May, 1878.

"A young man, of 19 years, of excellent constitution, voluntarily swallowed two grammes (36 grains) of crystalised strychnine, at midnight, after a copious meal, well aware, as he was a student in chemistry, of the properties of the substance.

Having previously secluded himself, his condition was undiscovered until five in the morning, when he was found in a violent accession of tetanic convulsions.

We saw him in fifteen minutes after, in a brief period of calm, which permitted him to utter the word *strychnia*, but was instantly succeeded by a tonic attack, in which every muscle was engaged, and imminent asphyxia was threatened. Whilst we caused to be prepared the solution mentioned below, advantage was taken of the absence of the canine and first molar teeth, for the introduction of a pint of olive oil. The trismus was strong, and no vomiting had yet taken place.

In the second place an enema of 500 grammes of brandy, with a like quantity of water, and two grammes of laudanum, was administered, to secure retention of which a tampon was inserted in the anus.

At half-past five o'clock the following solution was introduced into the stomach :

Iodurat. Potass. 4 grammes.
Iodini pulvi. 1 "

Dissolved, after trituration, in one litre of water. The tonic convulsions lasted about half an hour, succeeding to a complete calm, in a body completely rigid. The pulse was thready, respiration short and frequent, and a cyanotic tint covered the integuments, particularly those of the face and neck. Stimulant frictions were made over all the thorax for half an hour, and were succeeded by an easing of the breathing."

The writer proceeds with rather prolix details of the course of the symptoms, closing with the gratifying announcement of the complete restoration of the patient at the end of four days from the ingestion of the poison. In conclusion of the case, he submits some instructive observations on the therapeutic merits of the remedies employed by him, in which he seems to have regarded the antagonistic action of the brandy and laudanum as the chief curative agency, whilst the antidotal virtue of the iodinic solution was of secondary, if not equivocal, value. On this head he remarks as follows :

" Alcohol and opium are stimulants of the nerve centres, and the first is specialised in the medulla spinalis, an action contrary to the toxic here treated, proof of which, in this case, was quite manifest in the fact of the cessation of the convulsions, as soon as absorption of the injection had commenced. We believe that to the antagonistic (i. e. alcohol and opium) must be ascribed the merit of the chief *role* of our morning's work."

This case is of rare instructive value. Poisoning, whether accidental or intentional, by strychnine, is an occurrence of lamentable frequency; and it is most desirable that the medical practitioner who may be suddenly called to such cases, should be able to deal with them promptly and efficiently. Whiskey and laudanum are two fluids, which, despite of the Duncan Act, are likely to continue within easy reach, even in our remote back settlements, and this exhibition in form of enema, when trismus precludes introduction by the mouth, cannot be a difficult process. The precaution of plugging the anus, to secure retention, should not be overlooked.

It is well known that in the Western States, the bite of the rattlesnake is now almost universally treated by copious exhibitions of whiskey, with or without the addition of ammonia.

Quæry ?—If alcohol be the best counter-agent of strychnine, and of rattlesnake poison, may not the converse hold good ? and if so, why not treat alcoholic poisoning by liberal doses of strychnine, or by an adequte number of rattlesnake punctures ? One thing in favour of this practice would be, that the remedy would not be worse than the disease, —which is perhaps more than may be truthfully said over the entire surface of our therapeutics.

Selected Articles.

CLINIC ON HEPATIC CYST.

BY T. GAILLARD THOMAS, M.D., NEW YORK.

I have the pleasure of bringing before you to-day one of the most interesting cases that we have seen during our whole course this winter.

The patient's name is Laura F., a native of Germany, and thirty-one years of age. She has been married six years, and has three children, but no miscarriages. Her last child was born thirteen months ago, and the duration of her present trouble is nine months. About nine months ago, her physician informs me, she first noticed a swelling in the right hypochondriac region. From the situation and character of the tumor, which was, perhaps, of the size of a goose-egg, he concluded, very naturally, that it was the distended gall-bladder. She had some trouble in her digestion, being obliged to take food frequently, as she was able to eat only a small quantity at a time, and complained of great pain at the time of her menstrual periods.

Previously she had been perfectly healthy in every respect. After that the doctor did not see her until a comparatively short time ago, and he then found that the tumor had enormously increased in size, and that the woman was not as strong as formerly.

To-day we find the enlargement, whatever its character, to be of the size of a pregnant uterus at the end of seven and a half or eight months, as I can show you through the patient's clothing. The chief point in connection with the case is, of course to decide what this tumor is, and on that another depends: When we have ascertained its true character, what treatment shall we adopt for it ? Its general appearance is that of an ovarian cyst, but we will not jump at any conclusion. I shall make the diagnosis very carefully here, for the reason that I believe this to be a form of cyst which is very rare, and which is very different from an ovarian cyst, and therefore it is important that you should get the characteristics of the case strongly fixed in your minds.

When you see such an abdominal enlargement as this, a number of ideas as to what it may possibly be at once present themselves. Let us now take up briefly some of the forms of enlargement which

it might be, and in doing so we will omit certain extremely rare kinds of abdominal tumor.

First of all, I have no doubt the idea of pregnancy occurs to you. It is thirteen months since the patient's last child was born, and so it is altogether possible that another fœtus may now be at full term.

Again, it might be an ovarian cyst, and, as I have said, it presents very much, indeed, the appearance of one.

Then, again, it might be a uterine fibroid.

Next, it might be due to abdominal dropsy.

In the next place, it might not be a tumor at all, but simply an accumulation of fat in the abdominal walls.

Still further, it might be due to tympanites.

In examining whether the enlargement may not be dependent on some one of the several conditions suggested, let us begin with the last—tympanites. The question of tympanites is at once definitely settled by resorting to percussion over the surface of the tumor. When this is done, we find that there is everywhere the most complete dulness, amounting to absolute flatness; and we can therefore safely conclude that we have to deal with some body which is certainly not aëriform in character.

An immense mass of fat has been mentioned as a possible explanation of the tumor here present. I once performed ovariotomy in a case in which the diagnosis was somewhat obscure in certain respects, and when the incision was made into the abdomen I found a deposit of fat at least four inches in thickness in its walls. But if there were a mass of fat, it would be superficial, so that by grasping the abdominal walls deeply with the finge s, we would get under it, which is found to be impossible here. Then, again, great obesity would scarcely be suspected from such a history as has been given of this patient.

Now, let us see whether the diagnosis of pregnancy will stand the test of physical exploration. I examined the uterus thoroughly by conjoined manipulation, and finding it entirely undeveloped, apparently, ventured to introduce the probe, when I ascertained that it passed easily to the fundus, and that the canal of the organ was only of normal length. In addition, the woman has continued to menstruate regularly every month.

Might it not be a uterine tumor? Probably not, because we have been able to map out the size and shape of the uterus, and are able to move the organ freely about by means of the uterine sound without producing any effect upon the tumor. Then, uterine tumors are almost always solid in character, and here we get a distinct sense of fluctuation.

Is it ascites? Suppose you place some intestines in a tub of water. They will at once rise to the top. So here, if we had ascites, and the woman were lying on her back, the intestines would float on top. But listen to the percussion-note on the site of the tumor. There is perfect flatness everywhere, while upon the left side, on the contrary, there is well-marked tympanitic resonance. We must, therefore, exclude ascites. It is true that localized peritonitis will occasionally shut up fluid in some particular part of the abdomen, surrounding it with a wall of lymph. In such cases a differential diagnosis between this condition and ovarian cyst is often exceedingly difficult, and one might almost be considered excusable for opening the abdomen with a view to performing ovariotomy; but still, such a mistake will seldom be made if all the means at our disposal for making the diagnosis of ovarian disease are employed.

From the physical characteristics of this tumor we can decide with considerable certainty that it is a fluid cyst of some sort. We have ascertained by means of the sound that it is entirely distinct from the uterus. Is it then an ovarian cyst? Such was my impression when I first saw the tumor; but, on making a careful examination, I found two points in connection with it which militated very strongly indeed against such an hypothesis. The first was, that I was utterly unable to feel the tumor with the finger in the vagina. The force of gravitation usually keeps the inferior part of these ovarian growths low down in the pelvis, where, of course, they originate. The second point was that, on making percussion carefully up and down the abdomen, on the side of the tumor, I was able to make out a distinct area of resonance between the latter and the position of the ovary. Then, besides, it is a very rare thing to find an ovarian cyst localized like this. They are forced by the muscles wherever there is the most room for them, and so they are almost universally found in the middle of the abdomen, though always commencing in the side.

When I found that it was not an ovarian cyst, my next thought was that it was one of those localized peritoneal dropsies of which I have spoken. But I soon found that it was movable to a certain extent (though not very freely), which would not have been the case with such a collection of fluid surrounded by walls of inflammatory lymph; and then there has been no history whatever of any attack of peritonitis, either general or circumscribed.

The next thing that will probably occur to you is that it is a renal cyst. Several cases of tumor of this description have been cut down upon, under the idea that they were ovarian, even by men of the most distinguished reputation. It is certainly possible that this may be the diagnosis here, though I think it is not probable.

The question still comes up, therefore, what then is it? There is still another kind of cyst of which I have not yet spoken, and that is the *hepatic cyst*, the growth being connected directly with the liver itself. It is so exceedingly rare, however, that it is scarcely mentioned in medical literature

at all. A professional friend of mine, who is admirably qualified to do so, has looked up the subject very carefully in the books and journals, and has been able to find almost nothing in regard to it. I do not, of course, now refer to the hydatid cyst of the liver, which is well known, but am speaking of the pure hepatic cyst. That it is a condition which we may be liable to meet with occasionally, however, is certain. Not long since a young surgeon in a neighboring place told me that he was about to perform his first ovariotomy, and a short time afterwards I learned from him that when he had opened the abdomen he found both the ovaries perfectly healthy, but that there was an enormous cyst of the liver, in which there was nothing whatever like hydatids.

I think I am therefore justified in suspecting the presence of an hepatic cyst in the present instance, and in order to derive what assistance we may from an examination of its contents, I have drawn off a small quantity of the fluid by means of the hypodermic syringe. You observe that it is opaque, and of a strongly marked yellowish color; and Prof. Dalton has pronounced it to contain the coloring matter of the bile (not bile itself, you understand, but its coloring matter, at all events). You see the reaction with nitric acid upon this plate. I do not think it can be a hydatid cyst, as there have been none of the features of this condition present. I take it to be an hepatic cyst which is very close to the gall-bladder, and whose contents have, therefore, become tinged with its coloring matter. It seems probable that a process of exosmosis has taken place. It could not be the enlarged gall-bladder itself, for it is impossible that that should become so enormously distended. One other point corroborative of the supposition of the cyst's being connected with the liver is the fact that, on percussion, there is no line of resonance whatever between the liver and the tumor, there being one continued area of dulness from the upper border of the liver to the lowest point of the growth; while, as you remember, there is a line of resonance between the latter and the pelvis. In addition, I find that the left lobe of the liver is very large and prominent, so that it can be mapped out with great distinctness, and the hand slipped under it, as is usually the case when there is a large fatty liver. It would, at all events, indicate some diseased condition of the organ.

Having at length arrived at a probable diagnosis, we come now to the subject of treatment. Is anything to be done for this patient, and, if so, what? It seems to me that some interference will have to be practised in the case, from the fact that the cyst is increasing in size so rapidly. But, at the same time, any operation like that for ovarian tumor is out of the question. If this growth is an hepatic cyst, it is not at all likely that it can be removed with safety to the patient. In ovarian cyst, drawing off the fluid is no longer resorted to by any one as a sanative procedure. *Paracentesis ovarii* is only of service as an aid to diagnosis and as a palliative measure for the relief of certain urgent symptoms. But here I think we might perhaps draw off the fluid with advantage. Is there no danger in such an operation? you ask. Yes, there is great danger from the escape of fluid into the peritoneal cavity, for fatal peritonitis might easily result from this cause. You know that of late years gastrotomy has been several times performed; and you have probably all heard of the celebrated case of M. Labé, of Paris, in which a silver fork was extracted from the patient's stomach by this means. Before drawing off the contents of this cyst, I should advise that an inflammatory adhesion should be effected between the parietal and visceral layers of the peritoneum, in the same manner as was done in these cases, in order to prevent the fluid from escaping into the peritoneal cavity. This might be accomplished by means of a slough of the abdominal walls caused by the application of nitric acid; or, in other words, a nitric acid issue. Through the centre of this the needle of the aspirator could be passed, and it is possible that a single evacuation of its contents might result in the cure of the cyst. If it did not, the operation could be repeated whenever it should become necessary. Of course, no internal remedies will have any effect whatever upon the growth. For me this is an exceedingly interesting case, and I trust it has proved so to you also.—*Medical Record.*

ABSTRACT OF SIX LECTURES

ON THE

DIAGNOSIS AND SURGICAL TREATMENT OF ABDOMINAL TUMOURS.

Delivered at the Royal College of Surgeons,

BY T. SPENCER WELLS, F.R.C.S.,

Hunterian Professor of Surgery and Pathology.

The first lecture was delivered on Monday, June 10th, at 4 p.m. The lecturer entered at considerable length into the mode of examining patients with abdominal tumours, describing in detail the methods of external, internal, and combined examination, and showed his form of note-book for recording cases. He described the mode of distinguishing collections of fluid in the abdominal cavity from collections in cysts, and illustrated, from preparations in the museum, ovarian, renal, and hydatid cysts.

We give the following remarks on combined internal and external examination of the abdomen and pelvis:—

"With the thumb in the rectum and the fore-

finger in the vagina we can often get an accurate notion of what may be contained in Douglas's pouch; or, on the other hand, if the thumb is on the cervix uteri and the forefinger in the rectum, it is quiet easy to feel a considerable part of the uterus, even to the fundus, and so get a notion of its size and form, or of anything attached to its exterior, either in front, behind, or at the fundus.

"Simon, of Heidelberg, laid great stress on the combined examination of the bladder and uterus after dilatation of the urethra, believing that this was not only useful in completing diognosis of disease of the bladder itself, but also for examining growths in the vesico uterine pouch, tumours on the anterior surface of the uterus, or on either side of the pelvis, where they extend forwards. Combined examination between the walls of the abdomen and the bladder may occasionally become necessary. In some forms of uterine disease combined examination may be assisted by previous dilatation of the neck of the uterus with a sponge tent; and in other cases, where examination by rectum alone, or combination of rectal and external examination, may be insufficient, as in inversion of the uterus or congenital absence of this organ, combined examination by bladder and rectum, either by finger in rectum or sound in the bladder, or finger in bladder after dilatation of urethra, gives all the information required; but this seldom can be necessary, except in cases of atresia of the vagina.

"As Hegar has pointed out, if the thumb of one hand in the vagina fixes the vaginal portion of the cervix uteri, the index-finger of the same hand in the rectum can not only feel the posterior surface of the uterus distinctly, but can follow the sacro-uterine ligaments; while, if the other hand presses the abdominal wall backwards towards the sacrum, a very accurate idea can be obtained of the relations of all the pelvic organs. The uterus can be moved in various directions, and anything between it and the bladder or rectum is distinctly felt, supposing of course no extraordinary amount of fat in the abdominal wall, nor any peculiar rigidity in the vagina, interfere. Flexions of the uterus are thus very accurately recognised, and often replaced easily.

"These examinations must be carried on, sometimes with the patient on her back, sometimes on her side, and sometimes in both positions, and occasionally in the knee-and-elbow position, with the shoulders low, a change of position of the organs giving information otherwise unattainable.

"Simon lays great stress on the fact that when a patient is deeply narcotised the whole hand may be passed into the rectum. I have done this occasionally, but have not obtained much additional information than is given by one or two fingers.

"Hegar deserves the credit of introducing a method of examination which, in some cases, is really of very great value. He fixes the vaginal portion of the cervix uteri by a pair of long hooked forceps, by which the uterus may be drawn downwards or on either side. The same object may be obtained more safely by one of Marion Sims's hooks, and there can be no better method of clearing up doubts about the size and position of the uterus, its connexion with neighbouring organs, and especially its relation with abdominal and pelvic tumours.

"I need not say that this must all be done with due care; that no forcible traction upon the uterus must be exercised, and that steadying the organ will often be found quite enough.

"Suppose the uterus thus fixed and gentle traction made upon it with one hand, and one or two fingers of the other hand are passed into the rectum, the posterior surface and sides of uterus are felt, and, if necessary, the finger may be carried over the fundus. Sometimes the forceps or hook may be given to an assistant, while one or two fingers of one hand in the rectum and the other on the abdominal wall effect a combined examination of the most complete character. The connexion of the abdominal tumours with the pelvic organs may be very accurately made out. A slight pull on the uterus may be sufficient to clear up any doubts as to the connexion between the uterus and the tumour, while the pedicle or membranous adhesions with the rectum may be made tense and felt.

"Supposing a tumour is partially or entirely in the pelvis, in more or less close apposition with the uterus, by drawing the uterus downwards or forwards on to one or other side, the examining fingers in the rectum may follow the outlines of the tumour and notice how its movements are affected by the movements of the uterus, or if it may be separated from the uterus. It is by no means unfrequent that you can separate the uterus from a tumor where previously there had seemed to be intimate connexion, or union apparently inseparable. The assistant drawing down the uterus or to one side, with two fingers in the rectum and the other hand over the abdomen, pushing up the tumour, we may often get an idea of the length of the pedicle, and in reference to uterine fibroids information as to the possibility of removing them. You find out the length and thickness of the cervix, whether it is fixed or movable, and whether it is involved in the new growth. You pull, as it were, the neck of the uterus out of the mass which in a measure involved it, and this shows the tumour to be a growth which may be removed."

The lecturer then described the chemical character of fluids removed by tapping in ascites and in ovarian cysts, reserving the microscopial characters for the second lecture.

In the second lecture, delivered on Wednesday, June 12th, Mr. Wells described the microscopial

elements found in the ovarian fluids, dwelling especially on Drysdale's granular ovarian cell, and on certain groups of large pear-shaped vacuolating cells observed in peritoneal fluid in cases of cancer of omentum and ovary. The remainder of the lecture was occupied by the demonstration of specimens from the museum, to illustrate the diagnosis of different forms of multilocular, dermoid, and solid ovarian tumours, from the various abdominal tumours for which they may be mistaken. Very interesting specimens of splenic tumours removed during life by the lecturer where shown, large tumours of the kidney and liver, a large gall-bladder with thick walls, hydatids of the omentum, aortic aneurisms, false cysts formed by adhesions the result of chronic peritonitis, numerous specimens of intra-abdominal cancer, extra-uterine pregnancy, and tumours of the abdominal wall. The very rich collection of uterine tumours in the museum was reserved for the last lecture of the course.

THE PARIS EXHIBITION.

THE CITY OF PARIS.

In my first article I gave a general description of the Exhibition, its architectural features, topographical arrangements, and sanitary aspects. I now propose to give an account of the collective exhibition of each country before proceeding to the comparative notice of the same group of objects displayed by the various nations represented at the Exhibition.

And to begin with, I cannot do better, both as a matter of duty and of pleasure, than to devote this article to the City of Paris. Situate in the very centre of the Champs de Mars Palace, between the French section on the one side and the foreign section on the other, stretching out as it were a friendly hand to each, La Ville de Paris has a special pavilion of her own, in which she has gathered all the various features and manifestations of the five great branches which constitute her rather complex administration, and the active working of which combines to render her a city of extraordinary interest and elegance.

The five great branches or "Directions" to which I have referred comprise (1) the Direction of Fine Arts and Historical Works; (2) the Direction of Architecture and Municipal Buildings; (3) the Waters and Sewers of Paris; (4) the General Administration, including the Préfecture de Police and the Assistance Publique; and (5) the Direction of Primary Education. The first of these Directions is under the able presidency of M. Michaux. Since the death of the regretted M. Belgrand, the two Directions of Architecture and Waters have been entrusted to M. Alphand, who enjoys an unequalled reputation in Paris for taste, ingenuity, and competence in plastic arrangements. M. Albert Gigot directs the Préfecture de Police, whilst the Assistance Publique is now under the liberal and skilful management of M. Michel Moring. The important department of Primary Education is headed by M. Gruyer, member of the French Institute. Each of the Directions has a special display in the pavilion of La Ville de Paris.

Both ends of the pavilion are occupied by the Fine Arts department. This includes the works of departed masters as well as of renowned living artists, and the walls are hung with pictures of Bonnot, Boulanger, Cormon, Delaunay, Flandrin, Fleury, and others. All these works of art, as well as the statues scattered in the neighbouring grounds, are the property of the city of Paris, which buys them from the artists and lends them or gives them in keeping to the churches, the municipal buildings, the theatres, or squares of the city for the purpose of decorating them, but can withdraw them whenever it likes for exhibitions or other occasions. Though many of these artistic productions might, on account of the subjects which they represent, well deserve a passing notice from a medical pen, I shall content myself with admiring them, and pass on to the section of Architecture, where we find plans, drawings, and models of much special interest to us as a great many of them represent the new Hôtel Dieu, the future School of Medicine of Paris, the contemplated Clinique d'Accouchements, the model prison or house of repression at Nanteue, the recently constructed slaughter-houses of La Villette, the ventilation of new schools, mairies, and theatres, the Hospital of Méilmontant, in which the director of the Assistance Publique takes great pride, &c. But even here we need not be detained, as the future excursions of the Congress of Hygiene, which is to meet in August, will allow me to give practical and much more interesting descriptions of all these buildings. I may just say that the architectural exhibition is very complete, and does credit to the organisers of this department of the pavilion.

With the departments of the General Administration we come to subjects of intense interest to the profession. M. Albert Gigot has had the most praiseworthy and happy idea of exhibiting in its real and practical shape a complete specimen of the huts for the drowned, established about five years ago on the banks of the Seine, and of which I gave an account in this journal at the time of their initiation. Nothing is wanting to realise the complete picture of these invaluable huts, the usefulness of which has been proved by the lives of hundreds of people saved since their establishment. The room is exactly similar. There are the bed and mattress; here are the tub and the hot water apparatus; on the table the box of medicaments and the *appareil à fumigation*; nay, there is the

sergent de ville himself, such as he is to be seen in the huts along the Seine, only instead of resuscitating the drowned man, he is giving a picturesque description to a large number of people, who are listening attentively, and imbibing, it is to be hoped, valuable rules, which will not be forgotten in moments of emergency. He is showing them how the bed consists of a large hollow metal mattress filled with water, kept very hot by gaslights underneath; whilst another, a woollen, mattress is placed on the top of this, and how the drowned man is to be warmed. He points to the tub with the spouts of hot and cold water, and says how and when the douches are to be used. He winds up with a description of the rules and means which one can always apply for resuscitating the drowned, even in the absence of this improved apparatus, and directs them to read the code of precepts hung up on the wall, which they do when they can understand the language.

Another most interesting part of M. Albert Gigot's department consists of the fire-engines and pumps, and altogether the various apparatus employed by the famous firemen or *sapeurs-pompiers* of Paris. The Parisian population take especial interest in the visit to this section. They are extremely proud of this corps of *sapeurs-pompiers*, who render invaluable services in more than one way.

In this Exhibition of the City of Paris, so full of sanitary aspects, and which attracts a large crowd anxious to study its various features, the Assistance Publique, or general administration of the Paris hospitals, occupies a very prominent part. The Assistance Publique has two pavilions, in which it has collected the most interesting specimens of its various economical arrangements or historic records. In one of these pavilions is a glass press, the contents of which would delight and absorb the attention of an antiquarian for more than a week. It contains the most venerable documents of the Hôtel Dieu, going back to the twelfth century, with the coloured parchment account books of the pilgrims of St. Jacques, and other manuscripts of the highest historical value. Here are also to be found the uninterrupted annual series of account and budget books of the Hôtel Dieu, and other hospitals through ages down to our time. Near this press is a case containing the surgical instruments which belonged to the great Dupuytren, the surgeon to the Hôtel Dieu. Indeed, almost the whole of this pavilion, with the exception of a few things, is consecrated to the history and glory of the Hôtel Dieu. The walls are hung with pictures of its various appearances and changes since its earliest foundation, and with plans of the new building which has replaced it.

The other pavilion is a typical reproduction of the wards of a Paris hospital, or at all events of the arrangements concerning each patient in a ward. Here is the bed with the curtains, which are now given up entirely in England and in other countries, but are still in favour here. However, if I understand aright M. Michel Moring (the Director of the Assistance Publique), a plan of movable *paravents* will be tried, as a substitute for curtains, in the new and model Hôpital de Ménilmontant. Here is the *pancarte*, or bill, stuck up at the foot of the bedstead—the horrible *pancarte*, for which there is no excuse, and on which are related in full detail the name, religion, age, and disease of the patient. Here also are to be seen the typical specimens of mattress, bedding, chair, table, utensils, and, in fact, everything employed for each particular patient in the Paris hospitals; not to mention the surgeons' cases of instruments, the table, stretchers, &c. In a word, the object of the Assistance Publique is to give the visitor a correct idea of what is to be seen in hospital ward.

Between the two pavilions is a very perfect model of the lying-in pavilion, which has been built up at the lying-in hospital according to Dr. Tarnier's plans, and which is commonly known as Dr. Tarnier's "Model Pavilion." It consists of a ground-floor and first storey, each containing four bedrooms, which have no communication between themselves, and all open from the outside. In the centre of the rooms is an office looking upon the four appartments by means of a glass pane, so that a single person can exert supervision over the four rooms.

Between the two pavilions are likewise to be found extensive views and plans of the new Hôpital de Ménilmontant and the Maritime Hospital of Berck-sur-Mer. These are worthy of particular attention. The Hôpital Ménilmontant is intended to be a model hospital, with all the most recent improvements in hospital hygiene, whilst Berck-sur-Mer is a realisation, and a most successful one, in France of the maritime hospitals which are extensively used in Italy for scrofulous children, and constitute the treatment *par excellence* of scrofula and rickets.

The Direction of the Sewers and Waters of Paris has also been very successful in getting up a most valuable exhibition in this pavilion of the city. Models of everything relating to the sewers of Paris, which are accounted so perfect in their architectural arrangements, and are visited with intense curiosity by all who come to Paris, have been carefully gathered and exhibited here. The little models of the large and small collectors and pipes built with railways, and intended to be swept and kept clean by sweeping-vans, are exceedingly perfect. So also are the models of all the trucks, the vans, the railway cars, and boats which are used for floating on the sewer waters or gliding on the rails, and are elaborately and ingeniously contrived for the purpose of visiting, repairing, or cleansing the pipes.

Another important part of this exhibition is the one tended to show the utilisation of sewage. This occupies one half of the gallery running round the pavilion, and facing the Foreign Section. Here are brought every day the huge cabbages, potatoes, and artichokes grown in the *plaines* of Gennevilliers. Specimens of flourishing thyme, sage, aniseed, and angelica are also exhibited fresh, and a one-year poplar of surprising growth dominates all this vegetable kingdom. These various productions of a soil of exuberant fertility come from a place where formerly all cultivation was unknown on account of the barren sandiness of the soil. Everything that can illustrate this system of utilisation is shown in maps, models, or original specimens. The works established for the construction of the pipes are represented. So also the forcing-pumps. The fields of Gennevilliers are represented in a large model, with the trenches, the pipe orifices, the irrigating tubes, &c. Conspicuous on a shelf are three bottles—one containing the thick, greasy stuff called *eau d'egouts*, or sewer-water, such as it is brought to Gennevilliers; the second, clear transparent water which collects at a certain distance below the surface of the soil after having filtered through the sand, and then returns to the Seine; and the third, the residue of this filtration, which subsides in the trenches in the form of a peculiar sand.

This Direction has had the felicitous idea of exhibiting elsewhere a complete and graphic description of all the great works which have been undertaken for the purpose of bringing the pure water of the Dhuys and the Vannes from hundreds of miles into the capital, so as to supply its inhabitants with a perfect and reliable type of potable water. About one-half of Paris is already provided with this inestimable boon, which will soon be conferred on the other half; and it is really quite a relief to the visitor of this pavilion, after he has examined the admirable sewer arrangements of Paris, and the wonderful results of sewage at Gennevilliers, to go and dream of pure air and water before the views of the green valleys of Dhuys and Vannes, the aqueducts through the forest of Fontainebleau, and other pleasant aspects of water collection and distribution.

Before leaving this pavilion, so full of interest to a visitor concerned in hygiene, I must at least make a passing reference to a very complete model, exhibited, I think, by M. Alphand, and showing all the arrangements of a portion of the Boulevards. Everything relating to a house and street, the sanitary arrangements, the getting and distribution of air, light, and water, are shown with wonderful precision and correctness. This corner is invariably crammed with an eager crowd, and I do not remember ever having seen a more perfect, and, I think, useful description of the arrangements of a house and the part played by air, light, and water in human existence.—*Lancet.*

THE TREATMENT OF POST-PARTUM HÆMORRHAGE BY HOT WATER.

To the Editor of THE LANCET.

SIR,—In the paper which I read before the Dublin Obstetrical Society in December last, on the use of hot water in post-partum hæmorrhage, and abstract of which subsequently appeared in *The Lancet*, I stated that I was induced to adopt the practice in consequence of the representations of Dr. Whitwell, of San Francisco. I have since received the accompanying letter from him, which you may think worthy of publication. Its perusal may perhaps induce others to give the treatment a trial. For myself, I can say that I consider hot water injected into the vagina at a temperature of 110° to be a most efficient method of checking post-partum hæmorrhage, and that it is now carried out as a routine treatment in all suitable cases in this hospital.

I am, Sir, your obedient servant.

LOMBE ATTHILL, M.D.,

Rotunda Hospital, Dublin, June 3rd. Master of the Hospital.

San Francisco, California, March 6th, 1878.

MY DEAR DOCTOR,—You ask for some information concerning the use of hot water in post-partum hæmorrhage.

While in the Woman's Hospital of the State of New York during the winter of 1874-75, in the position of house-physician, I saw in the service of Dr. Emmet the hot water vaginal injections used to great advantage in all pelvic inflammations. It was also customary to order these injections for patients who were to undergo any operation about the vagina, that the tissues might become blanched and contracted, and thereby firmer. But on one occasion I had the good fortune to see the almost instantaneous effect of hot water in controlling hæmorrhage in a case calculated to try its powers to their utmost. The patient, a weak and very anæmic woman, had a tumour at the fundus of the uterus, which caused almost continual loss of blood. This, which afterwards proved to be a sarcoma, was partially removed by the scissors, the operation being then suspended on account of severe hæmorrhage. The patient was immediately turned on her back, and water at about 110° was injected to the fundus by means of a Davidson's syringe. After the first few syringefuls, the water came away clear, and there was no subsequent loss of blood. One drachm of Churchill's tincture of iodine was then thrown to the fundus, and the vagina carefully tamponed with cotton, which when removed showed merely a staining with iodine. I believe that Dr. Emmet's idea in using the hot water was to cause contraction of the womb, and so partially control the hæmorrhage, but that his main reliance was placed upon the iodine.

A short time before this I had heard Dr. Trask read an able paper on the dangers of perchloride of iron, and the use of iodine as a substitute, in cases of post-partum hæmorrhage. The case above cited and this paper fresh in my mind suggested to me the use of hot water in similar cases.

I had no knowledge of hot water having been used by anyone up to this time in cases of post-partum hæmorrhage; cold, on the contrary, being advised by all teachers and textbooks on the subject.

My first opportunity to test its efficacy was at Breslau in August, 1875, when, through the kindness of Dr. Landau, the assistant at Professor Spiegelberg's clinic, I was allowed to accompany him to a case to which he had been called. He found that the hæmorrhage was internal, and that the fundus was high above the umbilicus. The uterus was cleared of clots, and hot water injected as best we could with the imperfect means, an immense German syringe, that we had at hand. However, contraction took place so rapidly after the first injection that the midwife spoke of it, although she did not know why the *hot* water was being used. The womb remained firm and contracted. Two other cases proved to Dr. Landau its applicability, and at the annual meeting at Gratz in September he spoke enthusiastically of this line of treatment. He was told that it had been discarded long ago.

My next opportunity occurred in the service of Professor Brisky, in the Lying-in Hospital at Prag, where my statements were received with considerable incredulity by the assistant, and it was with some difficulty that I could induce him to use the water hot enough, he being fearful of burning the patient. The first case was a success, and since that time it has been thoroughly tried and accepted as the best treatment, and a large number of cases have been reported. Favourable reports also come from Berlin, and trials are being made in Strasburg, so that I was a little surprised to see that the use of that dangerous agent perchloride of iron is still advocated, and that hot water is not even spoken of.

In only one case have I found the uterus failing to contract almost instantaneously. After performing craniotomy, wishing to wash out thoroughly, and also to cause rapid and fair contraction, I passed my hand with the syringe into the uterus. I was a little startled, after injecting a moderate amount of water, to find that I could not touch the sides of the uterus. Fearing that I had failed, I was withdrawing my hand, when the water gushed out, and the womb had contracted firmly. It was then apparent that my wrist had prevented the return of the water by obstructing the cervix, and that the uterus had in consequence become dilated.

Would it be possible in a case of transverse presentation, the liquor annii having come away, to render the turning easy by the replacing of the amniotic fluid by warm water?

I shall be much pleased and deem it a favour if I hear from you with what success you meet, for it is an important subject, and I feel sure that hot water must soon supersede all drugs and medicated injections, being superior to them all in many important particulars.

1. It is easily attainable at all times.

2. It is absolutely safe, if care be taken to exclude air from the syringe.

3. It stops hæmorrhage, not by artificial plugging, but by causing a natural contraction of the uterus.

4. It is cleanly, and a disinfectant, such as carbolic acid, can be easily added.

5. By imparting heat, it rallies the exhausted patient, and gives power to the muscles for contracting, instead of, as is the case with ice, abstracting what little heat remains, and so benumbing and paralysing them.

Can more be required of an agent? It is my practice to have a syringe and hot water always on hand. In case of hæmorrhage the water is used as hot as can be borne by the hand. If, however, all goes well, a vaginal bath is given at 100°F., and continued for several days night and morning. A few drops of the strong impure carbolic is added to the water as a disinfectant. This bath always soothes and allays in a marked manner any inflammation and swelling of the external parts. It is a question how high a temperature can be borne, but I have known of a patient using water as hot as 125°.

Let me suggest the use of the hot injection into the uterus for the hastening the removal of the placenta; and, again, if in any case of hæmorrhage you should fail to bring on contraction, allow me to suggest the strong tincture of iodine injected well into the fundus to prevent the too early contraction of the cervix, whereby there is risk of some fluid being retained.

Yours very truly,

WM. S. WHITWELL.

To Dr. Lombe Atthill.—*Lancet.*

ON THE ADMINISTRATION OF IRON AND COD-LIVER OIL.

The desirability, and, at the same time, the difficulty, of giving the above remedies simultaneously must, no doubt, frequently have been experienced by every member of the profession. The difficulty consists in this:—If any of the commonly-used preparations of iron, such as the syrup of the iodide, or the tinctures, be in any way mixed with the cod-liver oil, the well-known and horribly nauseous flavour produced by the

contact of steel and fish is strongly developed; and on the other hand, if the oil be given at certain periods of the day, and a mixture, or even pills containing steel, at other times, the patient will, in all probability, make the complaint—"I seem to be always taking medicine," and his or her perseverance finally proves unequal to the task. I find that we have in the new preparation, solution of dialysed iron, a very satisfactory means, if the following plan be adopted, of overcoming such difficulties. When the oil has been poured on the vehicle in which it is usually taken, the requisite dose of the iron solution should then be carefully dropped upon the surface of the oil, and it will be found to remain suspended in the latter, neither sinking through into the liquid below nor becoming decomposed in any way. The iron solution being as nearly as possible tasteless, its addition is in no way objectionable to any patient who can tolerate the oil, and the relief from frequently repeated dose-taking is of course great. I have not yet had sufficient experience of the solution of dialysed iron to say whether its hæmatinic properties are equal to those of some other preparations of iron, but should they be found to be so, its adaptability for administration in the way referred to cannot fail to make it one of the most valuable chalybeate preparations.—*Lancet.*

CASE OF SCROTAL HERNIA OF TEN YEARS' STANDING; SYMPTOMS OF STRANGULATION; AUTO REDUCTION EN MASSE; OPERATION; RECOVERY.

BY GEO. JACKSON, F.R.C.S. ENG. (EXAM.),

(Notes by M. J. MacCarthy, M.D.)

T. R—, aged fifty-one years, a fisherman, engaged principally in trawling, which involves very heavy work, working at the winch, &c. Is a strong healthy man, and of sober habits. Has suffered for the last ten years from hernia, for which he has always worn a truss. If the truss was removed the hernia would always descend, even when lying down. In fact, according to his own statement, he could not stir without a truss. He could always return the hernia himself.

When first seen on July 14th, 1875, the patient had been suffering for three days with constant vomiting; the bowels had been constipated, some purgatives he had taken having had no effect; the vomit appears to have consisted mainly of bile. The hernia when first seen was in the scrotum, and was not reducible by the taxis. Injections of soapy water were ordered, which had the effect of bringing away hardened fæces from below the point of strangulation, but the hernia remained as it was. At a subsequent visit it was found that the vomiting had not ceased at the least, and the matter thrown up was described by his wife as of a most offensive character, and greatly resembling that passed in the stool. On examining the hernia it was found that the patient himself had entirely reduced the old hernia, I could follow the hernia through the external abdominal ring, and partly through the inguinal canal. Here, however, no impulse could be felt on the patients coughing. In addition to the old hernia, a tense swelling could be felt and perceived, further from the central line than the original one, and in the situation of the internal ring. Here an impulse could be felt on coughing. This was evidently a new feature in the case (and as the patient himself described it, on our remarking, it was a "new comer"). As the symptoms had not abated up to this after the auto-reduction, the opinion to which I then came, and which was coincided in by the other surgeons in the subsequent consultation, was that the patient in reducing the hernia *en masse* had in some way caused a part of the intestine to be further strangulated, so as to account for the secondary protrusion already described.

The symptoms—namely, stercoraceous vomiting, which was also pump-like in its character—continuing, I called into consultation Mr. Fox (surgeon to the South Devon and East Cornwall Hospital), Messrs. Stephens, and Edlin. It was the unanimous opinion of all that operation for strangulated hernia was the only chance of saving life, though all regarded recovery after the operation (even were it successful in finding out the exact point of strangulation) as improbable.

The usual rules for the operation were followed. The sac was opened, which lay in the inguinal canal, and the tense portion of the intestine protruded was examined. This did not yield to pressure from the finger, nor did it give rise to any gurgling sound on such pressure. After clearing it somewhat, I attempted to pass it through the canal, but found a decided resistance offered to its passage; and on passing up the finger I surmised that this obstruction occurred at the internal ring. After several attempts to return it, and after clearing the surface of the tube as far as possible, I was obliged to relinquish this attempt, though I had, with the object of doing so, cut through the major part of the external wall of the inguinal canal. With some slight delay a portion of the small intestine was brought down, which was greatly dilated, and evidently constricted at some point, as this portion of the tube was equal in diameter to that of the large intestine. After some difficulty and delay, and after the clearing away of cellular tissue, &c., I fortunately discovered a band stretching transversely across the intestine. On severing this, the inflated portion of the tube at once collapsed, and I was enabled to return the intestine without much difficulty through the internal ring. I

then carefully replaced the structures, and closed the incision by means of wire sutures, over which was placed cotton wool steeped in carbolic oil and bound down by plaster and covered by a pad, the whole being included by a spica bandage. I also at once ordered him an opium pill (1½ gr.) every four hours.

July 15th,—11 A.M.: Patient on the whole progressing favourably, although considerably exhausted. Slight tenderness over left inguinal region, intensified by pressure. The bowels have acted, vomiting having ceased. Pulse 80; temperature 100°F. Complains of thirst.—8.30 p.m.: Pulse 88; temperature 100·6°; respiration 25. Is in a state of partial stupor, from the effects of opium probably, pupils being contracted. Ordered to take opium pills every six instead of every four hours. Is restless, and complains of tenderness in left inguinal region.

16th.—12 A.M.: Pulse 80; respiration 24; temperature 100°. Respiration short and somewhat difficult; evidence of hypostatic congestion of bases of lung was found; bowels rather relaxed. Ordered brandy, egg, and milk mixture in half-ounce doses, every hour, and half an ounce of the following mixture to be taken every four hours: Carbolic glycerine, two drachms; tincture of opium, one drachm; disulphate of quinine, fifteen grains; dilute sulphuric acid, one drachm; water to six ounces—9 p.m.: Patient much exhausted; has taken but little nourishment. Pulse 100; respiration 30. Ordered turpentine fomentations to the back.

The subsequent progress of the case does not call for much comment; the recovery was somewhat tedious, but not complicated by any bowel mischief or peritonitis. Slight erysipelas took place about the wound, and a small abscess formed. For some months after the healing of the wound there was no tendency to hernial protrusion, although the inguinal canal had been so freely laid open; subsequently, however, owing to the laborious character of the employment of the patient, a considerable protrusion took place in the site of the cicatrix.

Remarks.—I believe this to have been a case similar to that described by Birkett in his article on Hernia, in Holmes's System of Surgery, a rent having probably taken place in the posterior well of the sac, through which the intestine escaped into the subserous areolar tissue, the sac itself being found lying in the inguinal canal, the constricting part being formed by the neck of the sac itself. That the intestine was in the subserous areolar tissue, and not pushed back into the abdomen, was quite clear, as it was impossible to return the intestine, without using undue force, previous to the drawing down of the intestine and the division of the constricting band.—*Lancet, June 22nd.*

IDIOPATHIC AMYLOID DISEASE OF THE LIVER, KIDNEY, AND SPLEEN.

(Under the care of Dr. JULIUS POLLOCK,) Charing Cross Hospital.

For the following interesting notes we are indebted to Mr. Robert Smith, M.A., M.B., medical registrar.

William D——, a labourer, aged twenty-six years, was admitted on Feb. 9th, complaining chiefly of weakness. He fixed the beginning of his illness three months before admission. About that time while waiting upon his father, who was seriously ill, he had several shivering fits. The sensations of cold were mostly confined to the back, and resembled the pouring of cold water on the spine. At night, after the shivering, he sweated freely. The shiverings continued on and off for a fortnight, but the patient continued to nurse his father until his death at Christmas. The father was said to have had enlargement of the liver. Cough now came on, and the patient began to spit tenacious phlegm of a dark colour. He lost flesh, and gradually grew weaker; but after the first week or two he was not feverish, and did not perspire unduly. About a fortnight before admission he once or twice felt severe pain at the pit of the stomach, relieved by taking hot gin-and-water and applying hot flannels to the abdomen. He had no other uneasiness, but gradually got weaker, and his appetite diminished. His previous history was good. He never had rheumatism or gout or any venereal affection. He married very young, and had had a family of four children, all quite healthy. He had not been in the habit of drinking spirits. His bowels were usually regular. His mother died of "inability to pass gall-stones," and used to be jaundiced now and then; and his father died, as just stated, of "enlargement of the liver"; his father's legs and feet swelled before death, but he had never been jaundiced, and was very pale when he died. Patient had four brothers and sisters alive and well.

On admission, he was a tall, sparely-built young man, with very pale features and anæmic mucous membranes; but he stated that he had always been pale. He was suffering no pain, and there was only a slight cough. The evening temperature was 101·5°F., at which point it continued for three days thereafter. The pulse was about 100. His skin felt quite moist, but there was no marked perspiration at night. He slept very well, and said his appetite was improving. The skin over his whole body was exceedingly pale. Physical examination of the chest revealed nothing of importance in regard either to lungs or heart. The region of liver dulness was increased, so as to extend downwards half way between the costal cartliages and the level of the umbilicus. There was not any tenderness on pressure over the liver

region, or anywhere over the abdomen. The spleen was also found to be enlarged. He suffered sometimes from flatulence. On the two sides of the chest and abdomen there were a few small rounded papules, slightly raised above the level of the skin, and of a faintly reddish colour. There were also one or two similar papules on each arm. On the 12th he passed sixteen ounces of urine, sp. gr. 1020, acid, and containing one twentieth part of albumen, but no sugar or casts. Ordered milk and beef-tea diet. To take five grains of iodide of potassium in saline mixture three times a day.

On the 14th the patient's evening temperature fell to 100·5°. That day he passed only eight ounces of urine, which still contained a small quantity of albumen, but no casts. On the 16th he complained of some soreness of throat, the result of fresh cold. His appetite continued to improve. To take five grains of chlorate of potash in one ounce perchloride of iron mixture three times a day.

On the 26th the patient felt much better, and was not quite so anæmic. His temperature had gradually fallen from the 15th, and had been normal for two days. He now passed about sixty ounces of urine in the twenty-four hours. It still contained a small quantity of albumen. The liver and splenic dulness have diminished in area.

On March 12th the patient continued to improve, and went out to day.

Remarks by Dr. JULIUS POLLOCK.—This case is one of some interest, being apparently an instance of idiopathic amyloid disease of the liver, spleen, and kidneys. When first seen the great enlargement and "rounding" of the liver was most remarkable, and the existence of a somewhat enlarged spleen and of albumen in the urine makes it pretty clear that the spleen and kidneys were likewise affected. Contrary to expectation, the patient began to get better from the moment of his coming into the hospital, and before he left the liver was scarcely larger than normal, and there was but a trace of albumen in the urine. The cause of the amyloid change in this case is quite obscure.—*The Lancet.*

PUERPERAL ANTISEPTICS.

Three papers by Langenbach, Schülein and Richter, in the *Zeitschrift fur Gedurtsh. und Gyn.*, report the extensive adoption of antiseptic measures for the prevention of puerperal infection in their respective hospitals. Richter's observations were made in the Charité Hospital, at Berlin, where, especially after complicated labors injections into the uterus were made for prophylactic purposes, and were continued throughout the puerperium. In all, about three thousand injections were made. The carbolic solution most frequently employed was a 2 per cent. solution. At first, a 3 per cent. solution was used; but, if repeated frequently, it was reduced to 2 per cent., as the former often caused carbolic acid to appear in the urine. Considering the numerous complications, the results were very favorable, being a mortality of 1. 6 per cent. of all the women delivered, and 4.83 per cent. among the cases in which the injections were used. Schulein, in the University Obstetric Clinic of Berlin, in the winter *semester* of 1876-77, treated two hundred and six out of two hundred and eighty seven lying-in women immediately after delivery by prophylactic injections of the uterus with a 3 per cent. solution of carbolic acid. This injection was employed whenever in the lying-in bed frequent rises of the pulse and temperature occurred. A glass tube was at first used, and a double current cathether afterward. Under this treatment, with eighty-one eases of illness among the two hundred and six, or 28 per cent., the deaths amounted to only seven, or 2.4 per cent.; only one occurring from septic causes, one in a woman on whom Cæsarean section had been performed. Langenbuch has since 1878 employed drainage of the puerperal uterus in order to afford a free outflow of the secretions. His experience shows that this treatment is quite innocuous. In one case, the drain remained nineteen days *in utero*. He recommends this treatment where septic infection already exists, in order to prevent a new invasion of septic material; and also as a prophylactic measure when the cases seem to offer a doubtful prognosis.—*Med. and Surg. Reporter.*

THE LONDON MEDICAL SOCIETIES.

The most active medical societies of London are the Pathological, of which Dr. Murchison is president, the Clinical, with Mr. Callender as presiding officer, and the Royal Medical and Chirurgical Society, of which Dr. West is president. These, as well as some others, hold their meetings in a finely-adapted hall in Berners street. The meetings of the Pathological have been of great interest of late, because three successive meetings have been devoted to the discussion of diseases of the lymphatic system; the specimens had, therefore, a direct bearing on the elucidation of lymphadenoma and leukemia. The discussion was opened by Dr. Wilks, of Guy's Hospital, who showed the original specimens from which Hodgin originally described the former affection. He was followed by Dr. Greenfield, who showed several specimens of the disease in question, and asserted that the typical Hodgin's disease was at first essentially local, consisting in an irritative overgrowth of some normal lymphatic gland tissue, which became infective, and spread to the other lymphatic glands

and to the spleen; and that the growths, the peculiar anæmia and cachexia, and the rise in temperature, occurring at a certain period of the disease, were the essential factors. During the three evenings there were many cases of lymphadenoma, leukemia, and essential anæmia reported, and the subject viewed in many ways, by such men as Murchison, Sir William Gull and Mr. Hutchinson. The report of these discussions should make the next volume of the Pathological Society's Transactions of greater value than ever, for it is in this debatable region that thinking men are now anxiously working. I was especially struck with the elaborate preparation made for the meetings, which contrasted so strongly with our own Pathological meetings, where we so often see a mass of specimens which are accompanied by no ante-mortem history, and of which we know little until the Committee on Morbid Growths reports, two weeks later. Here it is very different. As soon as I entered the anteroom, I found a table on which were about two dozen microscopes exhibiting sections of the specimens to be presented during the evening. Again, while the papers were being read, we had microscipical drawings passed to us to examine, as the reader reported what he found by personal inspection of the growth. I, at once, thought to myself, "Here is the cause of the reputation of the London Pathological Society's Transactions; this is the reason the older men do not desert the meetings. If one is sure of hearing histories of the specimens, and, at the same time, is able to see the sections under the microscope, and make his own deductions, he feels that he will be repaid for an evening spent in the hall of the Society." The grouping together of cognate subjects for each meeting, as has been so widely done by our own committee, is also a most excellent provision.

The Clinical Society seems to cover a field rather different from any of our Philadelphia societies, and to me it was one of the most interesting and instructive. The papers which relate to clinical medicine and surgery are limited in length to ten minutes, which insures the discussion of a number of cases every evening, though it unfortunately requires many papers to be hurried over in a very unsatisfactory manner. The character of the papers will be better appreciated if I give you the titles of a few recently read: "Removal of a Chip of Iron from the Crystalline Lens by a Powerful Magnet;" "Cases of Retinitis Hæmorrhagica in Connection with Gout;" "Cases of Pleural Effusions;" "Electrolytic Treatment of Epulis;" "Bilateral Paralysis of Crycoarytenoidei Postici Muscles;" "Plantar Bunion." At a subsequent period the following were to be presented: Ovariotomy in a Child aged Twelve years;" "Wound of an Abnormal Obturator Artery, in an Operation for Femoral Hernia." The short practical paper of this kind is what the busy practitioner desires. May we soon have in our own city a surgical society or a clinical society which will fill this position in the eyes of the profession.

Speaking of the Clinical Society suggests a case which I saw at one of its meetings. It was an instance of psoriasis, which had existed, to a greater or less extent, for twelve years. The man had been treated by Mr. Hutchinson, experimentally with chrysophanic acid, in the following way: The disease affected the trunk and arms especially, it would seem, and the patient was accordingly ordered to use tar ointment on the back and left arm, while he was to apply a preparation of chrysophanic acid to the chest and right arm. When he was presented to the members of the Society, after three weeks' employment of the drugs in question, his left arm and back showed numerous red and scaly patches of typical psoriasis, while the opposite regions were exceedingly soft and smooth, though evidently not entirely freed from the affection. It was certainly a very good demonstration of the use and effect of this new remedy of the dermatologist.

The Royal Medical and Chirurgical Society is another well known society of London, and is well attended. The papers are read by the secretaries and not by the authors themselves, which, to my mind, is very objectionable. No author would care to have a well-prepared paper read in a bungling manner by one who, on account of bad eyes or poor light, comes to a dead halt at frequent intervals. I heard an interesting article, by Mr. Jonathan Hutchinson, on what he proposes to call Ophthalmoplegia Interna, because the symptoms of the disease are palsy of the iris and ciliary muscles, without involvement of any of the external ocular muscles. The constrictor and dilator fibres of the iris are both paralyzed, and the pupil consequently remains unaltered, the patient has no power of accommodation, and requires convex lenses to enable him to read, while the muscles which rotate the globe, and the elevator of the lid retain their functions intact. This group of symptoms, Mr. H. believes to depend on disease—probably, as a rule, syphilitic—of the ciliary ganglion, which, as you know, has a sensory root from the fifth nerve, and motor roots from the third cerebral and from the vaso motor nerves. He reported eight cases in which he believed this to be the cause of the palsy, though no post-mortem record was possible in the cases, as the disease is not fatal. The palsy of the iris usually preceded that of accommodation, and was greater than the latter. The treatment adopted was anti-syphilitic in character. It is necessary, before coming to a diagnosis of disease of the ciliary ganglion, to assert that the paralytic condition does not extend to the external ocular muscles, for then the cause must be behind the point mentioned. On the same evening the min-

ute anatomy of the kidney was warmly discussed by Dr. Southey and Dr. Johnson.

In addition to these three most prominent societies there are numerous others, such as the Obstetrical, Medical, Microscopical, Epidermiological, Harveian, and Hunterian societies, which do good work in their respective fields. The London medical men are hard workers, and by recording their cases, do much toward advancing medical knowledge. There seems to be plenty of material always ready for the meetings of these innumerable societies, and, indeed, not infrequently papers announced have to be postponed, on account of being crowded out by the discussion of previous papers, which have excited unexpected interest and debate. The President of the Clinical Society informed me that they had on the list far more papers than could possibly be read during the present season; and, from the subjects and authors of these articles, I know the material was of no mean character. Trusting that this short sketch of the London societies may interest your readers, I remain, (Dr. ROBERTS, in *Med. & Surg. Reporter.*)

TOLERANCE OF OPIUM BY AN INFANT.—Dr. J. L. Little reports (*American Jour. Obstet.*, April, 1878) a case where paregoric in small doses was administered to a child three weeks old for the relief of suffering caused by an inflammation of the knee-joint. The child gradually bore larger and larger doses; the paregoric was changed to tincture of opium, and this again to Magendie's solution. Soon the child obtained such a tolerance of this drug that, in a couple of months, from half a drachm to a drachm a day was necessary to quiet it. This state of things continued until the amount consumed by the child, then less than eight months old, was two ounces of Magendie's solution in twenty-four hours. The dose was gradually diminished at the rate of about three drops per day, and, at the time of making the report, but ten drops were given at bedtime. The child's appearance improved very much; it was intelligent, and weighed eighteen pounds.

THE SECRET RECEPTION OF FOUNDLINGS.—Dr. Marjolin has just communicated a paper to the Academy of Moral and Political Science, having in view the demonstration, from philanthropic considerations and arguments, medical observation, and statistical deductions, that the *tours* or reception-boxes for foundlings should be re-established. These *tours* existed during the ancient *régime*, and an Imperial decree regulated them in 1811. Infants were then received and brought up by the State without any inquiry being made concerning their parents; and their number by 1833 had risen from 68,000 to 134,000 per annum, causing an expense of 10,000,000 fr. Public opinion then became aroused against them; and by a change in the law the *conseils-généraux* were authorised to refuse or diminish the payments for this purpose, while for the *tours* it was attempted to substitute relief given to mothers at home on condition that they suckled their infants, or these last being received into the hospitals after inquiry concerning the position of their mother. M. Marjolin adduces reasons and figures to show that since the abolition of the *tours* infanticide and abortion have been continually on the increase; while the imposition of the duty of suckling on abandoned women is evaded, or made the pretext for the commission of slow murders, which are most difficult of detection. The child saved from these dangers, and provided for by the public, will at twelve years hence cost but 2000 fr., or twice the price of a cavalry horse. It is an error to state that a large number of foundlings become inmates of prisons, for statistics show that natural children brought up at home are those to whom the accusation applies.—*Rev. Scientifique*, June 8. *Medical Times & Gazette*, June 15.

MR. AUGUSTUS SALA, the accomplished *litterature*, bears warm testimony, in the *Illustrated London News*, to the liberality of the medical profession. He says:—"All the stingy people in London seem to have come to the front for the purpose of abusing the doctors because they do not always give dates and items in the accounts which they furnish to their patients, but make instead a certain charge for 'medical attendance.' I own myself that I am somewhat prejudiced in the matter. I have had in my day a great deal to do with doctors, and I have found them, as a rule, the noblest, the most humane, and the most charitable of mankind .....It strikes me very forcibly that, so far from being 'fleeced' by the general practitioner, we are often apt (unconsciously, of course) to fleece him by cruelly deferring the payment of his bill. Why should we make him wait six months or a year for his due? He has his rent and taxes and his butcher and baker to pay, as we have, and very frequently his carriage to keep. Is he to eat lint and stethoscopes, or sustain nature by the hypodermic injection of morphia or the external exhibition of collodion? We should pay our doctors promptly, and then we should know what they are charging us for."

THE HEART'S WORK.—Dr. Guyol, of Paris, after careful calculation, estimates that during sixty years of life the heart pulsates 2,269,800,000: during a life of eighty years, 3,007,040,000: in one hundred years, there are 3,792,550,000 pulsations. —*The Doctor.*

NO STIMULANTS.—The other day a physician, to a patient enquiring, "What ought I to take, or to do when my feelings of exhaustion come on?" replied, "Go and lie down like any other beast."—*The Doctor.*

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science
Issued Promptly on the First of each Month.

Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; J. M. BALDWIN, 805 Broadway, New York, and BALLIERE, TINDALL & COX, 20 King William street, Strand, London, England.

TORONTO, AUG. 1, 1878.

MEDICAL BILL.

The profession in England are much exercised at present in discussing the above-mentioned Bill, which has passed the House of Lords without a division, but has its fate yet to be determined in the House of Commons. Before making a few remarks on the subject of Medical Corporations, we will lay before our readers an extract from the London *Lancet* of the 15th June, which will place them *au courant* of its general features:

"Let there be no mistake about one point—it is now a serious measure. There is no longer the weakly permissive character about it which it had when it first saw the light. It is the gravest bit of legislation in medical matters which has yet been attempted. It represents new powers in medical matters: it abolishes many old ones. It deals very seriously with the great traditional functions of the corporations—that of licensing men to practice; it sweeps it away. Universities and corporations will be untouched with regard to the power of granting degrees or diplomas, but the virtue of their degrees or diplomas to procure admission to the Register, and the corresponding right to practice will be gone. True, Universities and Corporations will still be regarded as the medical authorities on whom will be devolved in the first instance the duty of framing schemes for appointing persons to act as a board for examinations to be passed, in order to get the qualifying certificate which alone, as far as British subjects are concerned, is to entitle to registration. But although they are invited thus to frame schemes, the schemes will be framed without their consent if they fail to act, and from the present form of the bill it does not appear to be certain that the persons passing the conjoint Board will be brought into any essential relation or subjection to the existing corporations and other medical authorities. The Bill will make a grand difference to the several medical authorities, and over all of them, and over the Medical Council, will preside more decidedly than hitherto, the Privy Council, to which schemes have to be referred and by which they have to be approved: and which has the power, according to clause 7, of ordering the Medical Council to recognize Foreign and Colonial diplomas, which after due consideration, it has refused to recognize."

We would in limine state that the fears entertained by our brethren in England, that the surrender by the Universities and various licensing bodies, of the right to practice, accompanying the degree, or license, would, in a large number of instances, lead to the students being satisfied with the license of the Medical Council, find no endorsation in the results of a similar surrender by Universities and Colleges in Ontario some ten years ago. Cases of students being satisfied with the legal right to practice conferred by the license of the Medical Council, and failing to take the degree of M. B. at one of our Universities are so rare, as to be quite the exception to the rule. On the contrary a large number are to be found who are not satisfied with the Baccalaureat of one University, but become graduates of both Trinity and Toronto University, many afterwards repairing to Great Britain, from whence they return with an affix of letters of the alphabet to their name that is certainly amusing, if not imposing. That a thorough change in the profession in England will take place is pretty generally admitted. The most influential of the medical journals are openly and manifestly supporting the cause of justice, and there is no question that sooner or later the sought for change will pass the House of Commons. The question principally agitating the members of the profession is, what is to be done with the Universities and Corporations? The editor of the *Medical Press and Circular* for the 3rd of July, says:

"Upon the two chief aspects of the subject there is among the profession and the public, an overwhelming concurrence of opinion. Every one, save those who profit by the diploma trade, feels that reform is urgently needed, and that conjoint examination is the only method of reform which is practicable under existing circumstances. Every one, save a very few ultra radicals, is of opinion that the licensing corporations are deserving of being protected and preserved, and that Lord Repon's clause must be abrogated or modified, so as to ensure that licensed practitioners shall also be diploma holders."

We grant that an abrogation of the privileges of the various corporations of Great Britain which have done so much in the cause of Medical Sci-

ence, is a measure to be very seriously considered, even supposing it necessary to Medical Reform, but fortunately it is not necessary. For Ontario we have had in operation for a number of years, a Medical Bill that has certainly not been found ruinous to the interests of the Universities and Medical Schools. They have a representation of eight members in the medical council, and the general profession represented by territorial members. If the English College Councils are not utterly infatuated they will adopt some such compromise, and we heartily wish they may, as we certainly have no sympathy with the cry "*Delenda est Carthago.*" We would have less scruple in joining the attack against the Apothecaries' Company, as we consider they have far less claims to the inviolability of corporate privileges. There can be no question that the spirit of the Apothecaries' Act of 1815 was most grossly perverted by the Company, and taking a dishonest advantage of an oversight in the Legislature, they have for years lorded it over the profession. It is true that in the time of Ridout, Wheeler, Randall and others, a very superior preliminary and medical curriculum was established, the examinations were thoroughly practical and comprehensive, surpassing even those of institutions of far greater pretensions, nevertheless the rights and existence of the Apothecaries, as a trading company, were quite incompatible with the profession. Barristers, Attorneys, and Law Stationers, might with equal propriety coalesce.

INJURIOUS EFFECT OF MERCURIAL AMALGAMS AS TEETH FILLINGS.

Our attention has been drawn to this subject by the many cases which are constantly occurring in practice illustrative of the evil effect of these fillings upon the system amounting to a slow process of poisoning. Amalgams of mercury with silver, gold, lead, tin and bismuth have been used for the purposes of fillings for teeth, the ill effect of which upon the health of persons so treated is, we fear, not appreciated as it should be.

The subject is one upon which much discussion has taken place during the past few years, among members of the dental profession, and although its use as a filling has been pretty generally deprecated on the ground of its injurious influence upon the health, it is still in use by some. Neither the practitioner using it, nor the public can be at all alive to the health destroying influence which it is capable of exerting. A due acquaintance however, with the chemical nature of such fillings and the physiological effect of mercury upon the constitution should be all that is necessary to determine the attitude of any practitioner towards it.

A writer in the *Chicago Medical Journal* in 1874, charges "Amalgam plugs" with being capable of generating corrosive sublimate in the mouth through the action of the chlorine in the fluids of the mouth. He says, the symptoms are so numerous and varied in different cases, that it would be impossible to give them all, but I will say that a person poisoned in this way is liable to be treated for dyspepsia, neuralgia, paralysis, throat affection and consumption, the patient gradually wastes away as if going into a decline. In many cases the difficulty steals on so gently as not to excite the least alarm. There is a haggard expression, a metallic taste in the mouth, a fœted breath and excessive flow of saliva. I have not time to detail the manner in which the corrosive sublimate is formed in the mouth further than to say that the quicksilver in the plugs is driven off by the heat of the mouth, or any saline substance, such as our food, passes into the stomach and produces slow poisoning.

Instances of these effects have been met with in almost every physician's practice, and yet the real cause may have been overlooked. Many a delicate lady owes her ill health to this very source, and nothing will suffice as a remedy short of complete removal of the obnoxious material. The constitutional effects of mercury upon the system are not by any means confined to the mouth, and the dose necessary to their production is so very variable that their minuteness would be almost incredible if mentioned.

Piggot, in his work on the "chemistry and metallurgy," of dental surgery says of this mercurial, "to the chemist this question has but one side; it needs but to be stated to be immediately decided upon. The use of a mercurial amalgam is under all circumstances wrong for the simple reason that we have no guarantee that the most frightful results of mercurial poisoning will not take place."

Why incur so great a risk as is implied in this mercurial poisoning? The constitutional effects of mercury, are too well known to require mention,

and there can be no good reason for its use at all aside from its facility of introduction. The introduction of so virulent a poison into the system even in any form renders it possible for it to be absorbed in the slow way above indicated is radically wrong and should not be ventured upon if the patient's welfare is to be considered.

Our object in referring to this matter is in order that the profession generally may be aroused to the importance of using their influence against its use, and that many who are now the victims of slow poisoning from the presence of this drug in the mouth may be relieved by its prompt removal, and the substitution of something harmless if necessary.

HOSPITALS, GOVERNMENT ESTABLISHMENTS.

If we could have entertained a doubt that the views of medical advancement, that we have from time to time promulgated in our pages, were those of the profession at large, particularly as regards Hospitals as Practical Schools of Medicine, the subjoined resolution unanimously carried at the last meeting of the Medical Council, would have been sufficient to have assured our mind on the subject.

Moved by Dr. Ross, seconded by Dr. Clarke, "that in the opinion of this Council, the time has now arrived when the General Hospitals now in operation in Ontario, and such as shall hereafter be established, should be placed upon a government basis, similar to that provided for our Insane Asylums, so as to give an assurance to the sick poor in our midst that their wants and applications are duly respected, and also to equally distribute the onus of their support over the whole community, and that we do earnestly recommend our professional brethren throughout the whole country to urge upon the individual legislators, and through them upon the Legislature, the absolute necessity which does exist for such provision being made."

It should be remembered, that in them, all the accidents and diseases, which it is the glory of our profession to relieve, are accumulated for the purposes of the purest charity, for the enlarging of the domain of science by the most eminent practitioners of the day, and what is of equal importance to the public, for the instruction of the numerous students, who are afterwards to dispense their skill and knowledge in a thousand different channels. It may be argued that the great Hospitals in England are not supported out of the general taxation of the Kingdom. True, they are not the gift of the state; but how widely different are the circumstances, without for the present taking the trouble of attempting minute enquiry into them, we conceive we are authorized in our statement, that a very large portion of the funds of every Hospital in the City of London, is derived from fixed and permanent funds, and that the free gifts alone of deceased benefactors would go a vast way in maintaining them in their present efficiency. Besides, as to their floating income, much, very much indeed, of that is derived from the public spirit and generosity;—to lay ostentation aside—of persons of eminent station, who consider they owe a duty to society, for the protection it affords their wealth and rank, to contribute to the maintenance of public charities. These persons are not likely to be influenced in the management of the Hospitals, or in the appointment of Medical officers. In this country we lack the element necessary for dispensing with state support, viz: the great hereditary wealth of the aristocracy and landed gentry, and the vast acquired wealth of mercantile millionaires, to be found in every city of the United Kingdom. Our Hospitals therefore, have in a great measure to be supported by the payments of the patients, payments, it is true, fixed at a very low rate, but in many instances we apprehend, met by suffering or great self-denial on the part of the family. The yearly grants from the Government and the very liberal, in some instances munificient donations of private individuals, proving insufficient for the exigencies of the charities, if they are to be in any way conducted on a scale commensurate with the needs of the various cities in which they are situated, both as regards the number of sick poor, and as schools and theatres of medical science. Viewed in the latter light, Hospitals as integrant parts of the great republic of medicine, should, we conceive, be considered as most important parts of medical policy, and subject to laws devised by the profession for their good government. Some of these laws we would in this article venture to suggest. With every disposition to concede to Hospital Governors, a fair meed of praise for their zeal and impartiality in the general management of

Hospitals, we venture to think that in Medical and Surgical appointments, the election of officers, instead of, as in the past remaining in their hands, should be placed, as in the hospital at Hamilton, at the disposal of the profession, who, we conceive, would be better able than laymen, to form a correct opinion of the fitness of individuals nominated for vacancies as they may occur. Another point we would advert to, is this, at present medical officers are nominally appointed for a specific period, the vacation of their office, however, at the expiration of the time specified, has not we believe in the past been held as a necessary sequitor, neither have the Governors of the hospital always been mindful of the lapse of office by efflux of time, nor when they considered it desirable that the officer should continue his duties, that reappointment was necessary to make his position valid. We do not say that any abuse has from this laxity resulted, but it is a possible outcome, and should be guarded against. An officer may by more than ordinary skill as an operator, be looked upon as an indispensable retainer, and thus for years be continued on, until the tremor of the hand in operations, warns him, or should warn him, that his day is past. Sensible as men are in youth or manhood of the infirmities of age, they seldom discover these infirmities in themselves, and thus by tenacity of office, inflict a great evil upon young men who may be excluded from the advantage of hospital practice at a time when it is most likely to be serviceable to them. It is not to be concluded from our suggestion, of calling young men into active service, and employing them publicly that we desire to sever the connexion with our hospitals, of men whose services have been greatly appreciated. For them should be reserved the honorable situation of consulting physicians. Another point we would advert to is the desirability of having some system of rotation, similar to that existing in Continental hospitals. The election to rest with the profession. It would manifestly be to the interest of the public, which is deeply concerned in the available skill of the rising generation of physicians and surgeons, that these younger practitioners should have the benefit of the knowledge to be acquired by hospital practice. The competition it would produce in *regularity* and in study, by opening as far as possible, the road to eminence, by allowing unpatronized talent to make its way before the public, would contribute to the cultivation of medicine, in a manner scarcely known, as a science above all others worthy of public patronage.

PAPERS on ununited fracture by Dr. A. McLay, and Gastric Vertigo by Dr. Kellock, received too late for insertion in present number.

WE desire to call the attention of our readers to the notice in our advertising columns of the time and place fixed for the eleventh meeting of the Canada Medical Association, of which Dr. Workman is this year President. Hamilton is a most central and accessible city, and we trust that a very large representation of the profession in Ontario will assemble.

DR. O'REILLY, Medical Superintendent of the General Hospital, left on Friday for the United States, to visit New York, Boston, Rochester, Hartford, and other large cities where there are training schools for nurses, in order to find out as much as possible about the management of these useful and popular institutions. The Training School to be organized in connection with the Toronto General Hospital here will, it is expected, be opened about the beginning of September. Dr. O'Reilly will also visit such lying-in hospitals as may come in his way during his tour.

PROBABLE DURATION OF THE LIVES OF MEDICAL MEN.—A Berlin Professor states that the ordinary duration of life in the human being is seventy years, but that a very few medical practitioners attain this age, and scarcely one out of fifteen advance so far as eighty; half the total number of practitioners perish before fifty. There is no profession, he states, in which there exists so much moral contention and fatigue, or which permits of less repose, the regularity of which is so essential for the interior as well as the exterior of life. None which exposes the body to such disastrous influences of the atmosphere, to such disturbances of nocturnal repose, to such watchings, to such irregularities of living, to such disorders of the digestive organs, and to such moral affections. To this I can add, he continues, the unknown number of medical men who perish from contagion. These statements of the Professor confirm the truth of the old adage. "*Medicè vivere, est miserè vivere.*"

Dr. Covernton, late of Simcoe, a fortnight ago was made the recipient of a very flattering address from the inhabitants of the County of Norfolk, beautfully engrossed, with an accompanying costly gift.

We would be much obliged to Drs. Canniff and McFarlane, if they would favour us with the manuscript of their excellent papers on Diphtheria and Puerperal Convulsions for publication in Sept. number.

Appointment.—Dr. Grasett has been appointed one of the attending physicians at the hospital, vice Dr. Temple, resigned.

MEETINGS OF THE TORONTO MEDICAL SOCIETY.

Toronto, May 30th, 1878.

The Society met at the Canadian Institute, at the usual hour. Dr. Workman took the chair.

The minutes of the last meeting were read and adopted.

Drs. Daniel Clark and Charles Clark were then duly elected members of the Society.

Dr. Pyne proposed Dr. Laing as a candidate for membership. Dr. Fraser seconded the nomination.

Dr. Grassett then presented a specimen of cirrhosis of the liver and enlarged heart, accompanied by a short account of the case. A discussion ensued as to the causation of cirrhosis.

Dr. Zimmerman then presented a specimen of thrombosis of the longitudinal sinus, together with notes of the case. The longitudinal sinus was filled with coagulated fibrine.

Dr. Canniff then read the paper of the evening; the subject was diphtheria. A long and interesting discussion followed as to the cause of the disease, and as to the relationship which it bears to some other diseases.

Owing to the length of the discussion on Dr. Canniff's paper, Dr. Covernton postponed the reading of his until the next meeting.

It was moved by Dr. G. Wright and seconded by Dr. Pyne, that the discussion on diphtheria be resumed at the next meeting, after the reading of Dr. Covernton's paper.—Carried.

An informal conversation then took place as to the future place of meeting of the Society. Dr. Canniff expressed his willingness to aid the members in that matter, and report to the Executive Committee.

The Society then adjourned.

J. WORKMAN, M.D.,
President.

Thursday, 13th June, 1878.

At 8 o'clock, p.m., the President took the chair, and the meeting was called to order.

In the absence of the recording Secretary, the corresponding Secretary was directed to take the minutes, and the reading of those of last meeting was postponed.

No specimens were on exhibition, so Dr. Covernton proceeded to read his paper on Chorea, The paper was illustrated by two cases of hysterical rhythmical hemichorea, one from a clinical lecture of Charcot's, published in Le Progrès Medical, the other from Trousseau. A short discussion on the subject of the paper then ensued, and a vote of thanks to the reader was passed.

The discussion on Dr. Canniff's paper on Diphtheria, read at the last meeting, was then resumed, and Dr. Canniff briefly replied.

Dr. McFarlane announced that he would read a paper upon Puerperal Convulsions, at the next meeting, and Dr. Oldwright stated that he would at the same time bring forward the history of some such cases which had fallen under his observation. Dr. Burns gave notice of a motion to the effect that the interval between the meetings of the Society should be increased from two to three weeks, during the months of June, July, August and September. The notice was laid upon the table.

Dr. Canniff then reported upon his efforts to obtain a suitable room for meeting in, and the Society adjourned.

Books and Pamphlets.

Insanity and its Prevention, by Daniel H Tuke. Willing & Williamson.

Want of space will prevent notice of this addition to our literature of insanity, in the present number, a review of it by a distinguished specialist will appear in our number for September.

Brain: A Journal of Neurology. Edited by Drs. Bucknell, J. Crichten, Browne, Ferrier and J. Hughlings Jackson. Part 1, to be published quarterly: Willing & Williamson.

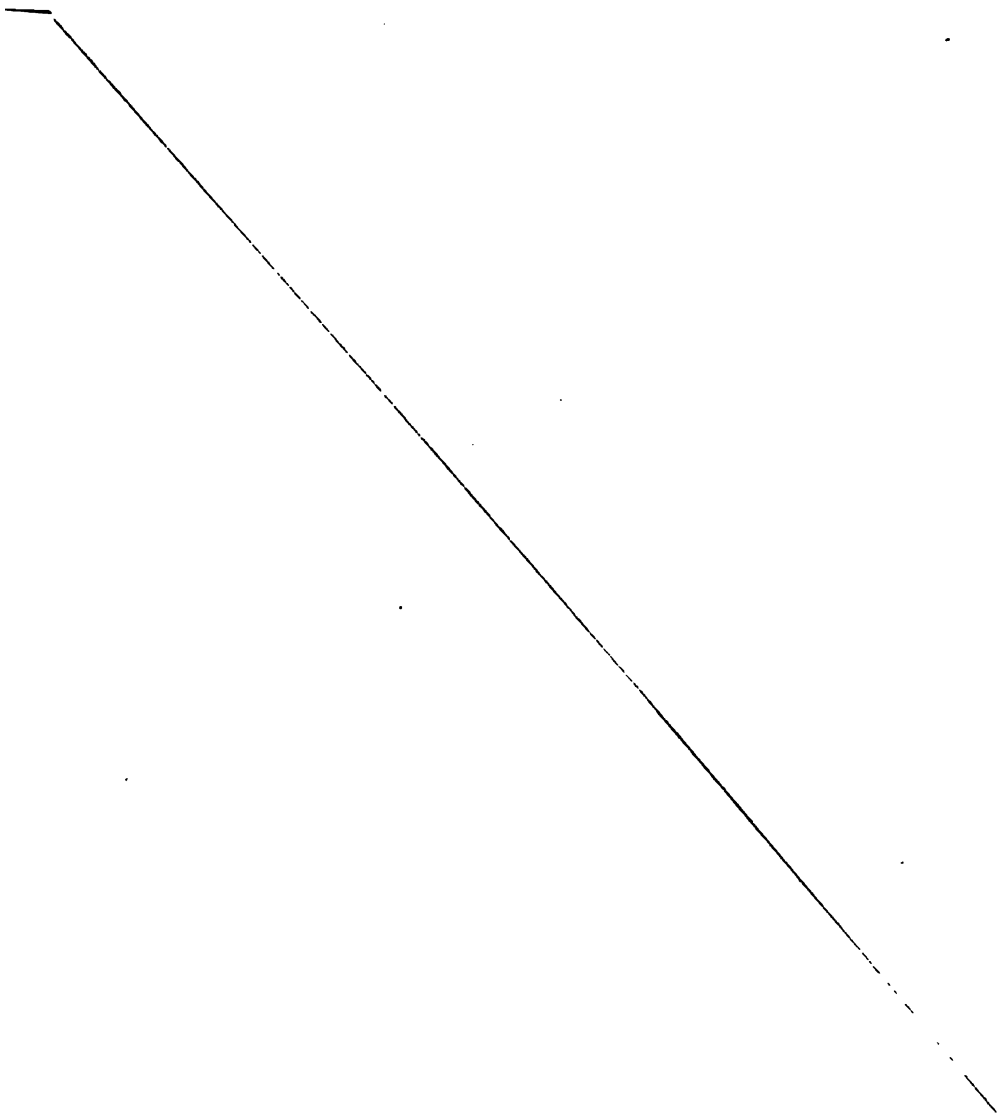
Will be noticed in September number.

Births, Marriages, Deaths.

At Glencoe, July 15th, the wife of W. E. Quinley, M.D. of a daughter.

In Philadelphia, on th 19th of June, G. Hayward Coburn, M.D., of Fredericton, New Brunswick, to Miss Mary M. Gamble, of Philadelphia.

At 168 Jarvis Street, Toronto, R. Burrington Nevitt, Surgeon North West Mounted Police, to Elizabeth E., daughter of Robert Beaty.



NB476

3 2044 103 053 013